

# summary of all product catalogues

2023 / 2024

for further information please use the following product catalogues



# **Food and Feed**

# product catalogue 2023 / 2024



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#### chemical-physical

#### organoleptic

molecular biologicalimmunological

safety parameters and adulterants

#### In the fields:

- Milk products / dairy products
- Fruit and vegetable products / egg products
- Beverages
- · Meat and fish
- Cereal and cereal products
- Infant formula

#### other food stuff such as

- Chocolate
- Honey
- Edible fat
- Mustard
- Animal feed
- GMO
- Declaration nutritional values

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#### **DRRR** - The company

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien GmbH (DRRR GmbH)

# Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

More than 500 PT's in 2021

#### **Proficiency testing provider**

The DRRR offers laboratories from the processing industry as well as official and private laboratories all aspects of quality assurance from one single source. Our focus is on food, consumer goods, packaging, building materials, plastics (polymers) and textiles, as well as microbiological analysis in these categories.

#### Accreditation ISO/IEC 17043:2010 (A2LA)

The DRRR is an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is only valid for the matrices/parameters listed on the A2LA scope of accreditation certificate [#5494.01].

Whether a proficiency test is covered or not covered by the scope of accreditation by A2LA can be viewed in our online portal (ODIN).

**Accredited PT-provider** 





#### Accreditation DIN EN ISO/IEC 17043:2010 (DAkkS)

The DRRR is an accredited proficiency testing provider by DAkkS according to DIN EN ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [D-EP-17063-01-00].

Whether a proficiency test is covered or not covered by the scope of accreditation by DAkkS can be viewed in our online portal (ODIN).

#### Reference material producer

We offer many certified reference materials as well as advise on quality matters and quality assurance training in the laboratory and the production.

#### **Customer support**

We provide advice to our customers in all question of validation of chemical-physical, microbiological, organoleptic and physical-mechanical analysis or statistical questions.

High-quality reference material

Any time competent contact persons

#### **A2LA-Accreditation (USA)**

The DRRR has successfully completed an accreditation audit by A2LA (American Association for Laboratory Accreditation). We are an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [#5494.01].

#### Alkaloids in foodstuff

The DRRR is continuously expanding the range of proficiency tests in the field of alkaloids. In recent years, proficiency tests on pyrrolizidine alkaloids have become established and the proficiency test "Quinolizidine alkaloids in lupine drink" was successfully conducted for the first time in 2022. This year, the proficiency tests "Tropane alkaloids in flour" and "Ergot alkaloids in flour" will be added to the program. Tropane alkaloids are plant constituents found in nightshade plants such as datura or deadly nightshade, which occur as weeds in fields. Ergot alkaloids occur in fungi, e.g. ergot. Both groups can cause acute toxic effects and enter the diet as contaminants via grain products.

#### **Antibiotics in food**

This year, the DRRR is offering a new proficiency test in milk. In the proficiency test "Inhibitors in milk", antibiotics from the substance groups sulfonamides, penicillins, cephalosporins and quinolones are queried. The DRRR is thus expanding its range of antibiotics proficiency tests. In 2022, the proficiency test "Antibiotics in liquid egg" was conducted for the first time and the proficiency test "Antibiotics in honey" has already been established for several years. In milk, antibiotics are used, for example, for udder diseases. Since antibiotics are not allowed to get into milk and other foods, these foods must be tested regularly.

#### THC and CBD in hemp seeds

From 2023, new maximum levels for THC in hemp seeds and other hemp seed products will apply due to the entry into force of EU Regulation 2022/1393. For hemp seeds, the permitted content of  $\Delta 9$ -THC equivalents will be 3,0 mg/kg. There is no THC and CBD in hemp seeds, but if hemp leaves enter the products as contamination during harvesting and processing, THC and CBD may be detectable. This happens regularly and therefore testing of hemp seeds or the food products made from them is important. Therefore, the DRRR is offering the proficiency test "Hemp Seed" for the first time this year and is thus expanding its range in this area. The proficiency test "Hemp oil" has already been successfully conducted twice and the proficiency test "Liquid of CBD cigarettes" was conducted for the first time in 2022.

#### Returning of ten result sheets

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds for free.

Please note, that the free of charge service is only valid for returning result sheets by ODIN.

- Check different methods
- Check different lab technicians
- Check different testing equipment

#### **ODIN - proficiency testing online**

# Simply brilliant, your proficiency testing with ODIN (Online Data Information Network).

- Fast and easy online registration / online announcement in our online catalogue
- Direct management and booking of the proficiency testing
- Overview about the registered proficiency testing schemes
- Fast and secure submission of your results via ODIN
- Online access to individual customers reports and certificates
- Supervisor rights available to overview all PTs of a multi-site company
- Saving of costs through booking and submission of your results via ODIN

# Secure payment with IRIS (Internet Remuneration Information Service).

- · Easy and safe payment by credit card
- Overview about all invoices
- · Fast and secure online access

You can also pay your invoice via banktransfer or bank check.



> Proficiency testing catalog



> Booked proficiency testings

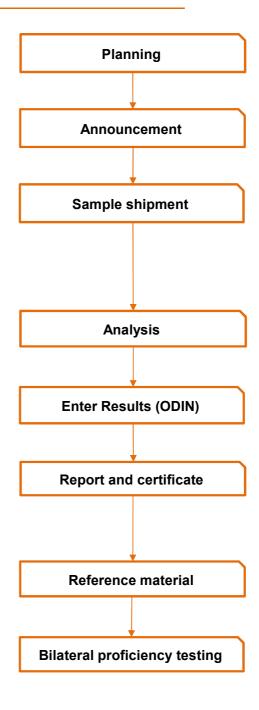


#### **Proficiency testing organisation**

- A precise planning and organisation of each proficiency testing round
- 2 weeks before we will dispatch the samples you will get an announcement with the proficiency testing details
- According to our requirements, you will receive suitable sample material for the respective proficiency testing scheme.

We reserve the right to have an external subcontractor carry out the sample purchase and any necessary testing.

- After receiving the samples you will have a period of 4 weeks for analysing
- Mail back the results via internet by using our result sheets in an Excel file or fill out our result sheets online in ODIN
- At the latest 3 weeks after the deadline you will get the report (optional by login in ODIN, as hardcopy by regular mail or as pdf-file by e-mail) incl. participation certificate with overview of your lab performance
- After the proficiency testing we can offer you reference materials
- Possibility to perform a bilateral proficiency testing (bPT)



#### Benefits of proficiency testing

#### Why take part in proficiency testing?

- Participation in proficiency testing schemes is required by international standards or national facilities, organizations and customers
- Participants can compare, assure and improve their own performance and quality against other laboratories worldwide
- Laboratories can recognize how well they have been completed with the applied method compared to the other laboratories
- · Saving on the costs of testing
- Unquestionable lab performance towards customers, authorities and certification authorities
- Saving on the costs of lab development and maintenance
- Saving on the costs of lab development and maintenance
- Saving on production costs by avoiding waste of raw material

# Your benefits in DRRR proficiency testing schemes

- Objective and independent impression of your quality and your performance of your routine testing method compared to the other participating laboratories
- Saving the costs, because you have the opportunity to analyze more samples and more parameters in one proficiency testing
- External demonstration of your performance with the results of the proficiency testing
- Build up of your own external quality assurance system with our statistical tools (contains statistical control charts, MS-Excel evaluation files and reference materials). With these tools incorporated your external quality assurance rays unmatched confidence
- Detailed planning and organization of your proficiency testing and an easier, faster and better communication with us



Image source: iStock.com/3dts

#### Statistical methods

#### We work according to:

- ISO Guide 31 / 35
- DIN EN ISO 17034
- DIN EN ISO/IEC 17020 / 17025 / 17043

• ISO 13528

#### **Laboratory performance:**

by calculation of the following paramters:

- z-score
- · z'-score
- CRD-Wert

Statistical models:

Depending on the type of the distribution of the data, different statistic models are used:

- Conventional statistics (all values)
- · Conventional statistics (no outliers)
- Robust statistics (Hampel estimator, Q-method)
- Robust statistics (Median, MAD/nIQR)
- Expert laboratory (expert decision)

Homogenous and stable sample material

Calculation of precision data acc. to ISO 5725-2 in many proficiency testing schemes

Selection of statistical method with the chi²-fit test

Method-specific evaluation according to the reference method (if available)

Additional extended method evaluation (in case data are available)



#### Z'-score > 2: What to do?

# You are not satisfied with your laboratory performance: What can you do?

Due to your showed laboratory performance you have been asked by the accreditation body, the monitoring authority or your customer to initiate measures to improve your laboratory performance.

These measures are often connected with considerable efforts in the laboratory and you only have a short time frame. In many cases the proof of a successful measure processing, by participation in a new proficiency testing round, is only possible in the following year. Until now it does not exist a possibility for a spontaneous performance review to equalize a previous unsatisfactory proficiency testing result.

# New: The bilateral proficiency testing (bPT)!

You can book and perform individually and flexibly the bilateral proficiency testing during a determined time period.

You receive a proficiency testing sample for analyzing. You submit the results of the testing. After that you will get your proof of performance as a z'-score calculation in the form of a certificate within 1 - 2 weeks.

The performance evaluation refers to the previous regular proficiency testing, so that you can connect the bPT to the regular proficiency testing round. The used sample material is derived from a previous proficiency testing round and provides the possibility of a comparable performance evaluation with the regular proficiency testing.

#### Your terms and conditions:

Participation in a bPT is open to all laboratories. Prior participation in our regular proficiency tests is not necessary.

The report of this proficiency testing is not older than ten weeks. You register within these ten weeks for the bPT and the performance is confirmed by the DRRR. The testing period is dependent on the technical factors (parameter, matrix etc.) and will be agreed individually\*. When this time is over after the sample shipment and you do not have sent us your results in this time, we can not evaluate your results and issue a certificate for you.

(\* normally not longer than 1 - 2 weeks)
The bPT is not in the scope of accreditation of
the DRRR. The realization of the bPT depends
on the availability of the material.

#### Costs bPT

The costs are identical to the costs of the respective proficiency test from our standard program (see ODIN) plus shipping costs.

Alternative you can also order reference material.

#### **Proficiency testing**

#### **Food industry**

The DRRR offers in the field of the quality assurance for the chemical analysis a variety of different primary, intermediate and final products for the food and packaging industry.

The laboratories can secure their analytics with the DRRR services as well as main parameters like fat, protein and dry matter and side and trace parameters.

- Milk and milk products
- Fruit and fruit juices
- Sweets and pastries
- Food of animal origin
- Meat and egg products
- Animal feed

#### Safety parameters and adulterants

For the quality assurance in the field the chemical analysis of safety parameters and adulterants the DRRR offers a variety of different parameter-matrix-combinations.

Statistical evaluation

Take advantage of our statistical evaluation system. The evaluation of the proficiency testing is based on the highest scientific and statistical level. Therefore the participating laboratories have a very precise feedback on their actual performance.

**Laboratory Measurement** 

By using our market-leading statistical evaluation, additional information such as laboratory uncertainty and various scattering of each laboraotires can be presented.

- Mycotoxins
- Residues
- Allergens

Market-leading statistical evaluation

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

#### milk and cream

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010007	UHT milk 1	fat, dry matter, protein, lactose, freezing point, density (3 different levels of fat content in PT round)	Apr-23	Login or register
2010366	UHT milk 2	fat, dry matter, protein, lactose, freezing point, lactulose, water activity (3 different levels of fat content in PT round)	Sep-23	
2010368	UHT milk 3	fat, dry matter, protein, lactose, freezing point, density (3 different levels of fat content in PT round)	Dec-23	
2010107	UHT milk (lactose free)	lactose (< 0,1 %)	May-23	
2010015	raw milk 1	fat, dry matter, protein, lactose, freezing	Jan-23	
2010013	raw miik i	point, urea, pH value, casein	Jan-24	
2010005	raw milk 2	fat, dry matter, protein, lactose, freezing point, pH value, urea, casein	Jun-23	
2010370	raw milk 3	fat, dry matter, protein, lactose, freezing point, casein, urea	Oct-23	
2010372	goat's milk	fat, protein, freezing point	Aug-23	
2010003	raw cream 1		Feb-23	
2010003	raw cream 1	fat, dry matter, protein	Feb-24	
2010374	raw cream 2		Jul-23	
2010041	evaporated milk	fat, dry matter, protein, ash, phosphorus	Jul-23	
2010624	buttermilk	phosphatides, fat, dry matter, ash, pH value, acidity acc. Soxhlet-Henkel, density in heat serum	Apr-23	
2010702	dairy drinks	fat, dry matter, protein, sucrose, glucose, lactose, fructose, total sugar (sum of glucose, fructose, sucrose)	May-23	
2010045	milk (residues)	chloramphenicol, aldrin, dieldrin, PCB 101, trichlormethane, aflatoxin M1, streptomycine, tetracycline (minimum 4 of the parameters quantitative)	Apr-23	
2010951	Inhibitors in milk	quant. determination of one antibiotic each from the substance groups sulfonamides, penicillins, cephalosporins, quinolones.	Aug-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

#### cheese

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010011	processed cheese 1	fat, dry matter, protein, lactose, sodium	Mar-23	Login or register
2010011	processed cheese 1	chloride, pH value, nitrate, citric acid	Mar-24	
2010378	processed cheese 3	fat, dry matter, protein, lactose, total phosphorus, ash, sodium chloride, nitrate, pH-value, citric acid, total lactic acid	Sep-23	
2010258	processed cheese	natamycin, aflatoxin M1	May-23	
2010029	fresh cheese 1	fat, dry matter, protein, total lactic acid	Apr-23	
2010164	curd	fat, dry matter, protein, total lactic acid	Oct-23	
2010047	semi hard cheese	fat, dry matter, protein, sodium chloride, nitrate	May-23	
2010031	hard cheese	fat, dry matter, protein, sodium chloride	Feb-23	
2010001	mara oncoso	iat, ary matter, protein, soulum emonue	Feb-24	
2010037	soft cheese	fat, dry matter, protein, sodium chloride, pH value	May-23	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 35 of this catalogue.

other milk products

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010009	butter	solids non-fat, water content, hardness, pH value, cholesterol, fat, optional sodium chloride (depends on the condition of the butter)	Sep-23	Login or register
2010382	butter (fatty acid profile)	fatty acid composition C4-C20	Sep-23	
2010017	yoghurt	fat, dry matter, protein, pH value, total lactic acid	Nov-23	
2010049	whey	fat, dry matter, protein, NPN, lactose, ash,	Feb-23	
2010049	wiley	phosphorus, potassium, calcium	Feb-24	
2010852	whey concentrate	fat, dry matter, protein, lactose, ash	Jul-23	
2010087	pudding - dessert	fat, dry matter, protein, lactose, pH value	Feb-23	
2010007	pudding - dessert	lat, dry matter, protein, factose, pri value	Feb-24	
2010091	AMF - anhydrous milk fat	alkalinity, free fatty acids, water content, peroxide value, carotene, butyric acid methyl ester	Apr-23	
3010012	ice-cream	quantitative parameters: fat, milkfat, colouring agent E 124 (cochenille red A), vanillin, vanillic acid, p-hydroxybenzaldehyde, p-hydroxybenzoic acid, lactose qualitative parameters°: colouring agent E 100 (curcumin), foreign fat, colouring agent B-carotene (E 160)  *The qualitative part of this proficiency testing scheme is not in the scope of accreditation.	Sep-23	
2010170	sour cream - crème fraiche	fat, dry matter, protein, pH value	Apr-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

#### milk powder

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010027	whole milk powder	fat, free fat, water content, protein, lactose, ash, titratable acidity	Apr-23	Login or register
2010001	skimmed milk powder	fat, water content, protein, lactose, ash, titratable acidity	Sep-23	
2010698	milk powder 3	bulk density after 100 tappings	Sep-23	
2010123	milk powder (lactose reduced)	lactose, dry matter	Dec-23	
2010113	milk powder nitrate - nitrite	nitrate, nitrite	Aug-23	
2010125	milk powder (Vitamin D)	vitamin D	Apr-23	
2010105	milk powder (Vitamin A & C)	vitamin A, vitamin C	Apr-23	
2010023	whey powder	at, water content, protein, lactose, ash, pH value, titratable acidity	Mar-23	
2010023	wiley powder		Mar-24	
2010099	casein - caseinate	fat, water content, protein, lactose, ash, pH	Mar-23	
2010000	odociii - odociiiato	value	Mar-24	

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## fruit and vegetables products

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010051	sugar mix (fruit preparation)	sucrose, glucose, fructose, maltose, starch, aspartame, acesulfam K, sorbate, saccharin, total sugar (sum of glucose, fructose, sucrose)	Jul-23	Login or register
2010053	fruit preparation	brix-value, pH value, total acid, citric acid, L-malic acid, ash, phosphorus, potassium	Sep-23	
2010384	sauerkraut	ascorbic acid, titratable total acid, volatile acid, lactic acid, pH-value, sodium chloride, non volatile acid	Jun-23	
2010386	dried fruits	SO <sub>2</sub> (sulphur dioxide)	Jun-23	
2010388	dry potato product	water, fat, saturated fatty acids, raw protein, ash, total carbohydrates, starch, sucrose, fibre, sodium	Aug-23	
2010390	tomato ketchup 1	pH-value, titratable acid, citric acid, sodium chloride, glucose, fructose, soluble dry matter, dry matter, sorbic acid, benzoic acid, sucrose (anhydrous), total sugar (sum of glucose, fructose, sucrose)	Jul-23	
2010325	tomato ketchup 2	lycopene	Jul-23	
2010704	hot sauce	Capsaicin, dihydrocapsaicin, nordihydrocapsaicin, total capsaicinoids	Jun-23	
2010190	legumes	fat, water content, fibre, nitrogen content, crude protein content	Aug-23	
2010943	Solvent residues in food	At least 3 different solvents quantitatively, e.g. benzene, toluene, xylene	Jun-23	
2011086	Vegetable chips	Fat, dry matter, ash, protein, acrylamide, sodium chloride	May-23	
2011088	Pesticides in vegetables	various pesticides from the areas of herbicides, insecticides and fungicides	Sep-23	
2011089	Pesticides in fruits	various pesticides from the areas of herbicides, insecticides and fungicides	Sep-23	
2011093	Alternaria toxins in tomato products	Alternariol (AOH), Alternariol monomethyl ether (AME), Tenuazonic acid (TEA), Tentoxin (TEN)	Nov-23	
2011097	Acrylamide in potato products	acrylamide	May-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 35 of this catalogue.

#### alcoholic beverages

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010408	fruit spirit	relative density 20 °C / 20 °C, alcohol, ethyl carbamate, ferment accompanying	Mar-23	Login or register
2010400	muit spirit	substances	Mar-24	
2010133	beer	apparent extract, extract, alcohol content in weight per cent and volume per cent, wort, density, bitterness units, pH value	Jul-23	
2010323	carbonated soft drinks	carbonation (CO2 content), actual alcohol strength, benzoic acid, sorbic acid, phosphoric acid as PO4 (2 samples non-alcoholic soda and 2 samples alcoholic soda (Ready-to-Drink))	May-23	
2010617	carbonated soft drinks - spirits	quinine (CAS No 130-95-0) (1 sample non-alcoholic and 1 sample alcoholic)	May-23	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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non-alcoholic beverages

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010392	coffee	water, ash, pH-value, acidity, water soluble extract, caffeine, acrylamide	Oct-23	Login or register
2010915	green coffee	loss in mass at 105 °C acc. to ISO 6673	May-23	
2010394	tea	dry matter, ash, water soluble ash, water soluble extract, caffeine, theobromine, theophylline, acid-insoluble ash	Oct-23	
2010139	pyrrolizidine alkaloids in tea	quan. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	Oct-23	
2010396	energy drink	pH-value, taurine, caffeine, inosit, sucrose (anhydrous), glucose (anhydrous), fructose (anhydrous), total sugar (sum of glucose, fructose, sucrose), total acid (pH 8.1) calculated as tartaric acid, relative density [20/20]	Oct-23	
2010021	vitamin solution	thiamine (vitamin B1), riboflavine (vitamin B2), pyridoxine (vitamin B6), cobalamin (vitamin B12), L-ascorbic acid (vitamin C), α-tocopherol (vitamin E), folic acid (vitamin B11), pantothenic acid (vitamin B5), niacin (vitamin B3)	May-23	
2010398	orange juice 1	total carotenoid + fraction I: carotene + fraction II: cryptoxanthineEster + fraktion III: xanthophyll ester	Aug-23	
2010402	carrot juice	relative density 20 °C / 20 °C, pH-value, titratable acid, sucrose, fructose, glucose, nitrate, β-carotene, α-carotene, total carotene, total sugar (sum of glucose, fructose, sucrose)	Oct-23	
2010600	fruit juice concentrate 1	brix value, ph value, titratable acidity, citric acid, D-isocitric-acid, L-malic acid,	Mar-23	
.5.2000	,	ascorbic acid, lactic acid, citric acid - isocitric acid ration, hesperidin	Mar-24	
2010602	fruit juice concentrate 2	brix value, titratable acidity, glucose, fructose, sucrose, total sugar (sum of glucose, fructose, sucrose), sugar free extract, glucose-fructose ratio, % sucrose of sugar	Jun-22	
2010610	fruit juice concentrate 3	brix value, ph value, titratable acidity, ash, potassium, calcium, magnesium, total phosphorus, sodium, nitrate, copper, iron	Nov-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

non-alcoholic beverages

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010055	grape juice	sulfur dioxide (SO <sub>2</sub> )	Jun-23	Login or register
2010127	currant juice	lead, cadmium, arsenic, copper, zinc, iron, tin, mercury, aluminium	Aug-23	
2010154	tomato juice	ergosterol	Nov-23	
2010714	orange juice	Carbendazim	Jun-23	
2010165	plant drink (milk alternative)	fat, dry matter, protein, freezing point, density (2 kinds of plant drink on the basis of e.g. soy or almond)	May-23	
2010357	trace elements in mineral water	uranium, vanadium, boron	Aug-23	
2010359	sugar substitutes in food	isomalt, lactite, maltitol, mannitol, sorbitol, xylitol	Aug-23	
2010502	Quinolizidine alkaloids in Lupins Drink	At least 3 different quinolizidine alkaloids quantitatively, e.g. lupanine, lupinin, spartein	May-23	
2011019	orange juice 2	limonin	Aug-22	
2011020	apple juice	patulin	Jun-22	

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#### egg products

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010056	egg products	total lipids, dry matter, protein, pH-value, cholesterol, α-linolenic acid, eicosapentaenoic acid, docosahexaenoic acid, salt content (sodium chloride)	Nov-23	Login or register
2010413	egg pasta	water, fat, raw protein, ash, chloride, cholesterol, total sterine, calculation of the egg content, fibre	Nov-23	
2010415	mayonnaise	total acid, water, fat, phosphatid-P205, cholesterol, egg yolk content, sorbic acid,	Jan-23	
2010413	mayormaise	benzoic acid, salt content (sodium chloride)	Jan-24	
2010129	residues in liquid egg	fat, nicotine, dioxins, dioxin-like PCBs	May-23	
2010706	antibiotics in liquid egg	quant. determination of one antibiotic each from the substance groups nitrofurans, sufonamides, tetracycline, chloramphenicol	May-23	
2010155	egg powder	fat, alpha-amylase, ash, pH value, water content, salt content, lactic acid, hydroxybutyric acid	Nov-23	
2010504	Hormons in liquid egg	At least one androgen, at least one estrogen and at least one progestin quantitatively	May-23	

## declaration nutritional values

Art. No.	proficiency testing type [A]	requested parameters	period	
2010451		energy, protein, carbohydrate, sugar, fat, saturated fatty acids, fibre, sodium	Sep-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<a href="https://www.DRRR.de">www.DRRR.de</a>). You can also use the registration forms on page 35 of this catalogue.

#### meat products

Art. No.	proficiency testing type [A]	requested parameters	pariod	To view pricing information
ALL NO.	proficiency testing type · ·	requested parameters	period	visit our online Portal:
2010019	boiled sausage 1	fat, water content, ash, protein, collagen, sodium chloride, nitrate, nitrite,	Feb-23	Login or register
2010013	bolicu sausage 1	diphosphorus pentoxide (P2O5), calcium, aw-value, starch	Feb-24	
2010417	boiled sausage 2 (round 1)	non-protein nitrogen (NPN), collagen	Feb-23	
2010417	bolled sadsage 2 (round 1)	degradation products, L-glutamin acid, citric acid, sodium acetate, L-lactat,	Feb-24	
2010204	boiled sausage 2 (round 2)	sodium nitrate, sodium nitrite, ascorbic acid, pH value	Sep-23	
2010214	raw sausage 1	aw-value, pH-value, D- & L-lactic acid, sodium, nitrate, nitrite, sorbic acid, monounsaturated fatty acids, saturated fatty acids, fat	Jun-23	
2010419	raw sausage 2	fat, water content, protein, ash, sodium chloride, hydroxyproline, diphosphorus pentoxide (P2O5), sodium, starch, solubilised milk protein	Jun-23	
2010712	vegetarian sausage substitute	fat, protein, dry matter, sodium chloride, ash, fibre	May-23	
2010169	Detection of soy protein in meat and meat products	soy protein quantitative	Jun-23	
2010945	Allergens in meat products	Various allergens quantitative: egg, peanut, nuts, celery, mustard	Jul-23	
2011056	cooked sausage	Fat, protein, dry matter, ash, sodium chloride, pH value, aw value, starch, hydroxyproline, nitrate, nitrite, diphosphorus pentoxide, L-glutamic acid	Nov-23	

#### fish and seafood

Art. No.	proficiency testing type [A]	requested parameters	period
2010421	fish paste 1	water, fat, raw protein, ash, sodium chloride, arsenic, iodine	Aug-23
2010423	fish paste 2	fat, sorbic acid, benzoic acid, saccharin, cyclamate, citric acid	Aug-23
2010506	Nitrosamines in fish	At least 3 nitrosamines quantitatively, e.g. N-nitrosodimethylamine (NDMA), N- nitrososarcosine (NSAR), N- nitrosohydroxyproline (NHPRO)	Aug-23

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

#### cereal products

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010069	pastries	fat, protein, dry matter, ash, milk fat, starch, sucrose, propionic acid	Nov-23	Login or register
2010427	flour	moisture content, raw protein, ash, starch, wet gluten content, falling number	Nov-23	
2010429	gluten	Gluten (prolamin contamination) in flour, e.g. oat flour and corn flour	Nov-23	
2010431	butter biscuit	ash, dry matter, raw protein, fat, semimicro butyric acid number, free butyric acid, butyric acid methyl ester, milk fat, starch, cholesterol, sucrose, fibre	Nov-23	
2010207	corn aflatoxin 1	aflatoxin - low level 1.00 ppb - 30.00 ppb (3 samples)	Aug-23	
2010228	corn aflatoxin 2	aflatoxin - high level 15.00 ppb - 100.00 ppb (3 samples)	Aug-23	
2010230	corn DON 1	DON - low level 0.10 ppm - 1.25 ppm (3 samples)	Sep-23	
2010232	corn DON 2	DON - high level 1.00 ppm - 6.00 ppm (3 samples)	Sep-23	
2010234	corn fumonisin 1	fumonisin - low level 0.10 ppm - 1.25 ppm (3 samples)	Oct-23	
2010236	corn fumonisin 2	fumonisin - high level 1.00 ppm - 6.00 ppm (3 samples)	Oct-23	
2010238	corn ochratoxin 1	ochratoxin - low level 1.00 ppb - 20.00 ppb (3 samples)	Nov-23	
2010240	corn ochratoxin 2	ochratoxin - high level 10.00 ppb - 100.00 ppb (3 samples)	Nov-23	
2010242	corn zearalenone	zearalenone 50.00 ppb- 1500.00 ppb (3 samples)	Nov-23	
2010208	wheat DON 1	DON - low level 0.10 ppm - 1.25 ppm (3 samples)	Aug-23	
2010209	wheat DON 2	DON - high level 1.00 ppm - 6.00 ppm (3 samples)	Aug-23	

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#### cereal products

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010244	wheat ochratoxin 1	ochratoxin - low level 1.00 ppb - 20.00 ppb (3 samples)	Sep-23	Login or register
2010246	wheat ochratoxin 2	ochratoxin - high level 10.00 ppb - 100.00 ppb (3 samples)	Sep-23	
2010248	barley DON	DON 0.05 ppm - 3.00 ppm (3 samples)	Nov-23	
2010250	brown rice aflatoxin	aflatoxin 1.00 ppb - 20.00 ppb (3 samples)	Nov-23	
2010218	biscuits (soy)	soy in biscuits 3.00 ppm - 30.00 ppm	May-23	
2010716	cereal / cereal products	glyphosat	Jul-23	
2010718	rice	arsenic	May-23	
2010361	test (ISO 5529)	sedimentation index (ml) - (acc. To Zeleny)	Sep-23	
2010363	determination of alveograph properties of dough - ISO 27971	determination of alveograph properties of dough	Sep-23	
2010367	determination of water absorption and rheological properties using a farinograph - ISO 5530-1	determination of water absorption and rheological properties using a farinograph	Sep-23	
2010369	determination of rheological properties using an extensograph - ISO 5530-2	determination of rheological properties using an extensograph	Sep-23	
2010409	determination of water absorption and rheological properties using a valorigraph - ISO 5530-3	determination of water absorption and rheological properties using a valorigraph	Sep-23	
2010937	Tropane alkaloids in flour	At least 3 different tropane alkaloids quantitatively, e.g. atropine, scopolamine, hyoscyamine.	May-23	
2010939	Ergot alkaloids in flour	At least 3 different ergot alkaloids quantitatively, e.g., ergotamine, ergometrine, ergosine, ergocristine, ergocryptine, and ergocornine.	May-23	
2010949	amylose in rice	amylose quantitatively	Aug-23	
2011098	Acrylamide in cereal products	acrylamide	Jul-23	
2010955	Antioxidants in food	E 320 butylated hydroxyanisole (BHA), E 321 butylated hydroxytoluene (BHT), E 324 ethoxyquin	Sep-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 35 of this catalogue.

#### infant formula

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010435	jar food	fat, protein, ash, moisture, vitamin C	Aug-23	Login or register
2010437	baby porridge powder 1	water, fat, raw protein, ash, sucrose, glucose, fructose	Apr-23	
2010439	baby porridge powder 2	sodium, potassium, magnesium, calcium, iron, zinc, iodine	Apr-23	
2010441	baby porridge powder 3	vitamin B1, vitamin B2, vitamin B6, vitamin B12, vitamin A, vitamin C, vitamin E, folic acid, pantothenic acid, biotin	Apr-23	
2010447	milk powder IMF part 1	fat, protein, ash, moisture, vitamin A (retinol), vitamin C	Aug-23	
2010449	milk powder IMF part 2	sodium, potassium, calcium, magnesium, phosphorus, iron, copper, zinc, manganese	Aug-23	
2010261	milk powder IMF allergens	gliadin, soy, casein, lactose, β-lacto- globuline	Oct-23	
2010957	Bisphenol A in infant food	bisphenol A	Oct-23	
2011096	residues in infant formula	Chlorate, perchlorate, phosphonic acid	Aug-23	

#### mineral oil in food stuff

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period
2010180	mineral oil in low-fat and starch-rich foodstuff	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	May-23
2010590	mineral oil in cocoa butter and chocolate	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	Jul-23
2010245	mineral oil in cheese and milk powder	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	Jul-23
2010320	mineral oil in edible fat and edible oil	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C36-C50	Aug-23

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

#### other food matrices

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010453	protein powder	protein, riboflavine (vitamin B2), pyridoxine (vitamin B6), ascorbic acid (vitamin C)	Jun-23	Login or register
2010197	delicatessen salad	benzoic acid, sorbic acid, PHB-ester	Mar-23	
		, , , , , , , , , , , , , , , , , , , ,	Mar-24	
2010025	chocolate	fat, water content, protein, lactose, milk fat, theobromine, sucrose, total alkaloids,	Feb-23	
		caffeine	Feb-24	
2010457	edible fat 1	distribution of fatty acids	Oct-23	
2010710	edible fat 2	iodine, acid value, peroxide, saponification, tocopherole, free fatty acids, p-anisidine value, refraction index, water content, total sterols	Oct-23	
2010450	mustard	dry matter, total acid, sodium chloride, allyl	Jan-23	
2010459	mustard	mustard oil, SO2 (sulfur dioxide), fat	Jan-24	
2010157	PAHs in animal and vegetable fats and oils	naphthalene, anthracene, benzo(a)anthracene, chrysene, benzo(b)fluoranthen, benzo(k)fluoranthen, benzo(j)fluoranthen, benzo(e)pyren, benzo(a)pyren, dibenz(ah)anthracene (at least 5 of the parameters quantitative) A PAH concentration in the samples of approximately 0,1-5 µg/kg per PAH is to be expected.	Oct-23	
2010161	Determination of natural thickeners	agar, carrageenan, guar, gum arabic, locust bean gum, sodium alginate and pectin	Aug-23	
2010247	aflatoxins in chocolate	aflatoxin B1, B2, G1, G2, total aflatoxin content	Sep-23	
2010249	pesticides in chocolate	quant. determination of several pesticides from the fields of herbicides, insecticides and fungicides	Sep-23	
2010327	sugar free candies	sucrose, glucose, fructose, water content (total sugar content < 0.5%, reference method for sugar: enzymatics), total sugar (sum of glucose, fructose, sucrose)	Jul-23	
2010337	metals in cocoa and chocolate	cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	Oct-23	
2010339	acrylamide in cocoa and chocolate	acrylamide	Oct-23	

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#### other food matrices

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010341	cannabis oil	CAS 13956-29-1 Cannabidiol (CBD)	Aug-23	Login or register
2010343	vegetarian bread spread	fat, protein, dry matter, salt, ashes, pH- value	Oct-23	
2010345	metals in hummus	cadmium, nickel	Oct-23	
2010347	pyrrolizidine alkaloids in spices	quan. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	Oct-23	
2010349	nicotine replacement products	Nicotine in nicotine pouches	Aug-23	
2010498	Metals in tobacco	cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	Aug-23	
2010500	MCPD and glycidol in edible oil	3-Monochlorpropandiol (3-MCPD), 2- Monochlorpropandiol (2-MCPD), Glycidol	Nov-23	
2010941	Cannabinoids in hemp seeds	CAS 13956-29-1 Cannabidiol (CBD), total Delta-9-THC	Jun-23	
2010953	nutritional components in a complete meal	Moisture, Ash, Fat, Nitrogen, Sodium, Chloride	Sep-23	
2010959	phthalates in edible oil	CAS 28553-12-0 (DINP), CAS 117-81-7 (DEHP), CAS 117-84-0 (DNOP), CAS 26761- 40-0 (DIDP), CAS 85-68-7 (BBP), CAS 84-74- 2 (DBP), CAS 84-69-5 (DIBP), CAS 131-18-0 (DPP), CAS 71888-89-6 (DIHP), CAS 117-82- 8 (DMEP)	Oct-23	
2011021	rheology of edible fat	viscosity	Jun-23	
2011087	Peanut butter	Dry matter, ash, fat, protein, pH value, sodium chloride, total sugars, total dietary fibre	Apr-23	
2011090	Aflatoxins in nuts	B1, B2, G1, G2, total aflatoxin content	Oct-23	
2011091	Aflatoxins in spices	B1, B2, G1, G2, total aflatoxin content	Aug-23	
2011092	Alternaria toxins in vegetable oils	Alternariol (AOH), Alternariol monomethyl ether (AME), Tenuazonic acid (TEA), Tentoxin (TEN)	Nov-23	
2011094	Pesticide residues in vegetable oil	various pesticides from the areas of herbicides, insecticides and fungicides	Oct-23	
2011095	Ethylene oxide in spices	Ethylene oxid	Nov-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

#### honey and beeswax

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010455	honey 1	diastase activity, proline, HMF, conductivity, pH-value, water, glycerin, ethanol	Aug-23	Login or register
2010708	honey 2	glucose, fructose, maltose, saccharose, turanose, saccharase number, free acids, ash	Aug-23	
2011002	antibiotics in honey	quan. determination of one antibiotic of each of the substance groups sulfonamides and tetracyclines as well as of chloramphenicol and streptomycin.	Jun-23	
2011004	pesticide residues in honey	The following pesticides can be queried: DEET, cymiazole, malathion, chlorpyriphos, chlorfenvinphos, piperonyl butoxide, bromopropylate, bifenthrin, tetradifon, lambda-cyhalothrin, acrinathrin, cis-permethrin, trans-permethrin, coumaphos, boscalid, cypermethrin, total tau-fluvalinate, deltamethrin, flumethrin, M- metalaxyl, carbaryl, propargite, acetamiprid, thiamethoxam, amitraz, carbaryl, imidaclopride, metalaxyl, carbendazim, thiaclopride, 2,4-DMP- formamide, 2,4-DMP-me-formamidine, glyphosate.	Jul-23	
2011006	pyrrolizidine alkaloids in honey	quan. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	Jun-23	
2011008	veterinary drug residues in honey	quan. determination of three distinct veterinary drugs or their components, e.g. thymol, phenol, naphthalene, cymiazol, coumaphos or amitraz	Jul-23	
2011010	GMOs in honey	qualitative detection of different screening elements, e.g. P-35S, T-NOS and P-FMV	Jul-23	
2011012	relative frequency of pollen in honey	relative frequency of pollen	Jun-23	
2011014	falsification honey	Identification of rice syrup and sugar beet syrup in honey, qualitative proficiency test	Jul-23	
2011016	residues in beeswax	quan. determination of three distinct substances out of the fields varroa veterinary drugs and plant protection agents	Aug-23	
2011018	falsification beeswax	paraffin wax content, stearin content	Aug-23	

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#### animal feed

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010351	metals in animal feed	cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	Aug-23	Login or register
2010353	ingredients animal feed	moisture content, crude protein content, crude oil, crude ash, crude fiber, sugar, lactose, starch	Aug-23	
2010355	animal components in animal feed	qualitative identification of animal components	Aug-23	
2010093	animal feed mycotoxins	OTA, DON, aflatoxin	Mar-23	
2010093	ariiinarieeu mycotoxins	OTA, DON, anatoxiii	Mar-24	
2010315	Fluoride content in animal feed	fluoride content	Nov-23	
2010947	phytase in feed	phytase quantitatively	Jul-22	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

#### drinking water

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010373	pharmaceutical residues in drinking water	Diclofenac, Ibuprofen	Aug-23	Login or register
2010395	Microplastic in water	particle number	Aug-23	

# molecular biological-immunological proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 35 of this catalogue.

determination of animal species

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010263	beef, pork, horse	qualitative detection of the animal species beef, pork and horse (participation with protein and DNA based methods possible) and quantitative detection of the relative amount of animal species (only DNA-based methods possible)	Dec-23	<u>Login or register</u>
2010588	porcine and beef DNA in gelatine	Qualitative detection of low amounts of porcine (sus scrofa) and beef (bos taurus) DNA in highly processed food matrix (gelatin) in this proficiency testing also the DNA of sheep, goat and fish can be requested	Dec-23	
2010313	porcine DNA in Candy	Qualitative detection of low amounts of porcine (sus scrofa) DNA in candy (gummy candy)	Dec-23	
2010335	detection of the animal species in milk	animal species qualitative (The animal species can be detected in 3 different milks by isoelectric focusing, ELISA or PCR.)	Dec-23	

# molecular biological-immunological proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

#### **GMO**

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010720	soy (GMO)	qualitative detection of the screening elements P-35S, T-NOS and P-FMV as well as the quantitative detection of the relative amount of transgene soy (construct or event specific methods possible)	Nov-23	<u>Login or register</u>
2011010	GMOs in honey	qualitative detection of different screening elements, e.g. P-35S, T-NOS and P-FMV	Jul-23	
2010141	corn (GMO)	qualitative detection of the screening elements P-35S, T-NOS and pat as well as the quantitative detection of the relative amount of transgene corn (construct or event specific methods possible)	Nov-23	
2010143	rice (GMO)	qualitative detection of the screening elements P-35S, T-NOS and bar as well as the quantitative detection of the relative amount of transgene rice (construct or event specific methods possible)	Nov-23	
2010145	canola (GMO)	qualitative detection of the screening elements T-NOS, CTP2-CP4EPSPS and P-FMV as well as the quantitative detection of the relative amount of transgene canola (construct or event specific methods possible)	Dec-23	
2010147	cotton (GMO)	qualitative detection of the screening elements P-35S, T-NOS and pat as well as the quantitative detection of the relative amount of transgene cotton (construct or event specific methods possible)	Dec-23	
2010331	potato (GMO)	qualitative detection of different screening elements, e.g. P-35S, T-NOS and P-FMV as well as the quantitative detection of the relative amount of transgene potato (construct or event specific methods possible)	Nov-23	
2010333	sugar beet (GMO)	qualitative detection of different screening elements, e.g. P-35S, T-NOS and P-FMV as well as the quantitative detection of the relative amount of transgene sugar beet (construct or event specific methods possible)	Nov-23	

# organoleptic proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

# ranking test

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
3010000	water (ranking test, basic	organoleptic analysis - basic taste	Feb-23	Login or register
3010000	tastes) 1	(2 basic tastes)	Feb-24	
3010028	water (ranking test, basic tastes) 2	organoleptic analysis - basic taste (2 basic tastes)	Jun-23	
3010030	water (ranking test, basic tastes) 3	organoleptic analysis - basic taste (2 basic tastes)	Nov-23	
3010034	beer (ranking test, Diacetyl)	organoleptic analysis - Diacetyl	Oct-23	
3010037	yoghurt (ranking test, basic tastes)	organoleptic analysis - basic taste (2 basic tastes)	Oct-23	
3010003	yoghurt (ranking test,	organoleptic analysis - flavours	Feb-23	
3010003	flavours) 1	(2 flavours)	Feb-24	
3010041	yoghurt (ranking test, flavours) 2	organoleptic analysis - flavours (2 flavours)	Nov-23	

possible basic tastes	sweet, sour, bitter, salty
possible flavours (except flavour faint)	strawberry, cherry, vanilla, peach, lemon

# organoleptic proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

# triangle test

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
3010006	water (triangle test, basic taste)	organoleptic analysis - triangle test basic taste	Jul-23	Login or register
3010032	fruit juice (triangle test, flavour taint)	organoleptic analysis - triangle test flavour taint	Sep-23	
3010020	beer (triangle test, Diacetyl)	organoleptic analysis - triangle test Diacetyl	Oct-23	
3010039	yoghurt (triangle test, basic taste)	organoleptic analysis - triangle test basic taste	Oct-23	
3010043	yoghurt (triangle test, flavour)	organoleptic analysis - triangle test	Feb-23	
3010043	yoghurt (thangle test, havour)	flavour	Feb-24	
3010004	tuna (triangle test)	organoleptic analysis - triangle test	Jun-23	
3010054	texture test (triangle test)	organoleptic analysis - triangle test	Apr-23	
3010007	colour check (triangle test)	organoleptic analysis - triangle test	Apr-23	
3010010	apple juice (triangle test, basic taste)	organoleptic analysis - triangle test basic taste	Jun-23	
3010013	milk (triangle test, flavour taint)	organoleptic analysis - triangle test flavour	Apr-23	
3010016	coffee infusion (triangle test, flavour taint)	organoleptic analysis - triangle test flavour	Jul-23	

possible basic tastes	sweet, sour, bitter, salty
DOSSIDIE HAVOURS (EXCEPT HAVOUR TAINT)	strawberry, cherry, vanilla, peach, lemon

#### organoleptic proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 35 of this catalogue.

#### threshold value

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:	
For the follo	owing proficiency testing sc	Login or register			
3010008	drinking water (TON, TFN)	water quality according to EN 1622:2006 examination for panels - minimum number of participants: 3 assessors!	Mar-23		
3010008	difficility water (1014, 1114)	determination of the threshold odour number (TON) determination of the threshold flavour number (TFN)	Mar-24		
3010055	fruit juice (threshold value examination, flavour taint)	organoleptic analysis - threshold value examination of flavour taint	Dec-23		

# descriptive testing

Art. No.	proficiency testing type [A]	requested parameters	period
3010049	chocolate (simple descriptive	examination for panels simple descriptive testing (up to 5	Mar-23
0010010	testing)	assessors)	Mar-24
3010051	chocolate (profile testing)	examination for panels profile testing (up to 5 assessors)	Jun-23
3010018	sausage (simple descriptive testing)	examination for panels simple descriptive testing (up to 5 assessors)	Nov-23
3010025	fruit juice (simple descriptive testing)	examination for panels simple descriptive testing (up to 5 assessors)	Sep-23
3010027	cheese (simple descriptive testing)	examination for panels simple descriptive testing (up to 5 assessors)	Jul-23

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#### registration form proficiency testing



Article No. / proficiency testing type	period	result release and report online (ODIN)	result release by e- mail / fax; report by e- mail	additional sample sets / assessor (organoleptic)

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds are free of charge. As a participant, you benefit from our international recognized proficiency testing schemes. By submitting up to ten result sheets you are now enabled to run international comparisions to check different methods and different lab technicians with one proficiency testing round. Your benefit: Participating in DRRR-proficiency testing services save costs for your quality assurance! If you need additional sample sets, you have the opportunity to order it according to our latest product catalogue.

Please note, that the free of charge service is only valid for returning result sheets by ODIN. If you send us your results by mail, fax or postal delivery, the additional result sheet will be charged according the latest product catalogue as a sample set equivalent.

In very rare individual cases an accredited proficiency testing round will not be carried out within the scope of accreditation due to technical or organizational reasons. In these rare cases the DRRR will inform the participants before the start of the proficiency testing round, thus before the sample shipment. An immediately free cancellation for the participants is possible until the date of the sample shipment.

Your registration is an one-time order. It is only valid for one year. Cancelation fees apply when cancelling a registration. If you want to have a permanent-registration please tick the box on the right side.

Please send registration to: fax-no. +49 (0)8 31/960 878-99 e-mail: info@DRRR.de online via www.odin.drrr.de

- this registration is permanent-registration and valid until my cancelation
- An offer with the total costs is needed
- A Purchase order from the purchasing department will follow

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contact person		
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post-code /city		
country (if not Germany)		
fon		
fax		
e-mail		
e-mail for invoices		
VAT-ID-No. (if available)		
With your signature you agree		
with our general terms and conditions.	date	signature

## reference material

#### **Importance**

Reference material is a substance or item with one or more defined (known) characteristics and sufficient homogeneity.

Benefit of using certified reference materials

These materials are suitable for the calibration of equipment, for the quality assurance of testing methods or to analyse derivate reference materials. DRRR-Reference materials are essential for the chemical, physical, microbiological and sensory analytics as well as for the quality assurance. Standards for the accreditation of testing and calibration laboratories demand the using of reference materials.

The use of reference materials (RM) and certified reference materials (CRM) is an important procedure to avoid mistakes in the lab routine.

Characteristics

- the reference value is developed by the total number of results of the participants of proficiency testing (consensus value)
- DRRR-Reference materials do always refer to a DRRR-Proficiency testing
- reliable reference values according to advanced statistical evaluation
- independent service without influence of societies organisations and federations

The opportunity to collaborate with the best laboratories for the different requirements assures the high quality of our materials.

### Identification

The reference materials listed on the following pages have specific article numbers to identify the materials. To supply our customers with consistently high quality the DRRR-reference materials will be replaced regularly by corresponding materials during the year. Currently available reference materials and its corresponding reference values will be sent on request. We reserve our right to send you always the latest materials.

Description reference material

Profit with our high quality standards for your lab work

Reference materials meet all requirements of the ISO Guides 31 and 35, but it does not exist any accreditation for reference materials.

Availability and order request of reference material

## long-term calibration material (LKM)



# A brand of DRRR GmbH and LUFA Nord-West

#### The brand STANDARON®

The DRRR has concluded a far reaching cooperation with the lfL. The main focus of this cooperation is the development and commercialisation of long term calibration materials for the food economy. The developed materials were merchandised with the name STANDARON®

STANDARON® long-term calibration materials (LKM) for raw milk, raw cream and pasteurised milk will be used for the calibration of IR instruments.

### Reference system for raw milk analysis

With the cooperation arises a range of services that offers not only regional but also national both in North and South Germany a competent reference system for raw milk analysis. Therewith it also offers more advantages and reliabilities for our international customers. The cooperation could already prove its competence at the new introduced STANDARON® raw cream materials. The quality advantage of the materials has been clearly confirmed at linearity, precision and stability. Besides standard materials is a focus of the cooperation to produce tailor-made, customer-oriented materials which are specially designed to cover individual production processes.

The reference values of STANDARON® materials were defined by selected "reference laboratories". These laboratories are proved the requirements according to DIN EN ISO/IEC 17025:2017.

#### Questions about the application

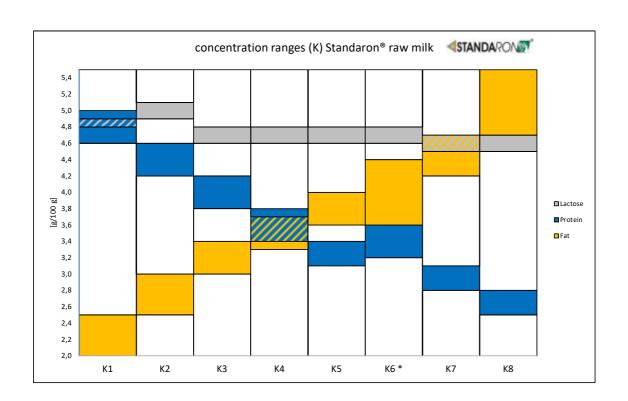
If you need any advice to assure your calibration do not hesitate to contact us.

Application of the materials

## STANDARON® - overview raw milk

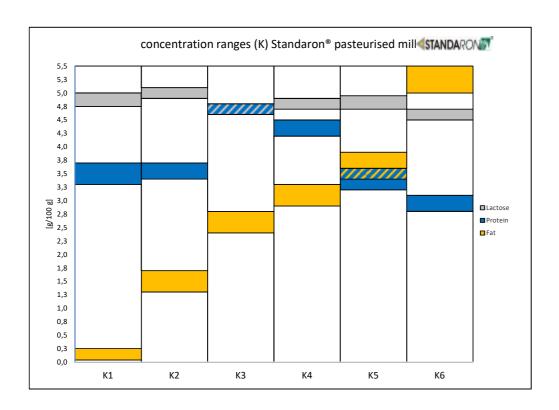
LKM-type	Art. No.	fat	protein	lactose	dry matter	freezing point	urea		
		Röse- Gottlieb	Kjeldahl	enzym.	102 °C	cryoscopy	enzym.	packaging unit	prices
		g/100g	g/100g	g/100g	g/100g	m°C	mg/kg		
LKM RO K1	1141021	2,0 - 2,5 %	4,6 - 5,0 %	4,8 - 4,9 %					
LKM RO K2	1141022	2,5 - 3,0 %	4,2 - 4,6 %	4,9 - 5,1 %					
LKM RO K3	1141023	3,0 - 3,4 %	3,8 - 4,2 %	4,6 - 4,8 %					
LKM RO K4	1141024	3,3 - 3,7 %	3,4 - 3,8 %	4,6 - 4,8 %		eference mate			
LKM RO K5	1141025	3,6 - 4,0 %	3,1 - 3,4 %	4,6 - 4,8 %	4,6 - 4,8 % corresponding reference values are available on request	50 ml	20 €		
LKM RO K6	1141026	3,6 - 4,4 %	3,2 - 3,6 %	4,6 - 4,8 %					
LKM RO K7	1141027	4,2 - 4,7 %	2,8 - 3,1 %	4,5 - 4,7 %					
LKM RO K8	1141028	4,7 - 5,5 %	2,5 - 2,8 %	4,5 - 4,7 %					

<sup>\*</sup> unmodified raw milk, higher variances possible



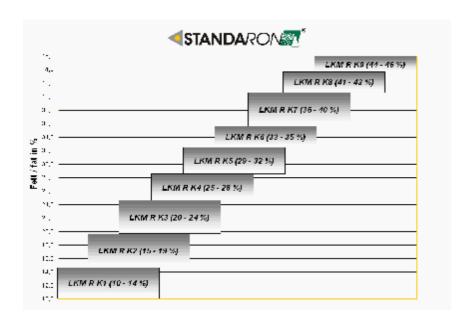
# **STANDARON®** - overview pasteurized milk

LKM-type	Art. No.	fat	protein	lactose mono- hydrate	dry matter	freezing point				
		Röse- Gottlieb	Kjeldahl	enzym.	102 °C	cryos-copy	packaging unit	prices		
		g/100g	g/100g	g/100g	g/100g	°C				
LKM PAM K1	1141001	0,04 - 0,25 %	3,3 - 3,7 %	4,75 - 5,0 %	•					
LKM PAM K2	1141002	1,3 - 1,7 %	3,4 - 3,7 %	% 4,9 - 5,1 %						
LKM PAM K3	1141003	2,4 - 2,8 %	4,6 - 4,8 %	4,6 - 4,8 %	material	reference and the	50 ml	18 €		
LKM PAM K4	1141004	2,9 - 3,3 %	4,2 - 4,5 %	4,7 - 4,9 %	corresponding reference values are available on request		values are available on		30 IIII	10 C
LKM PAM K5	1141005	3,4 - 3,9 %	3,2 - 3,6 %	% 4,7 - 4,95 %						
LKM PAM K6	1141006	5,0 - 5,5 %	2,8 - 3,1 %	4,5 - 4,7 %						



# **STANDARON®** - overview raw cream

LKM-type	Art. No.	fat	protein	dry matter		
		Röse- Gottlieb	Kjeldahl	102 °C	packaging unit	prices
		g/100g	g/100g	g/100g		
LKM R K1	1141011	10 - 14 %				
LKM R K2	1141012	15 - 19 %				
LKM R K3	1141013	20 - 24 %	- 24 %			
LKM R K4	1141014	25 - 28 %		reference and the		20€
LKM R K5	1141015	29 - 32 %	correspondi	ng reference	50 ml	
LKM R K6	1141016	33 - 35 %		available on uest		
LKM R K7	1141017	36 - 40 %	·			
LKM R K8	1141018	41 - 43 %				24€
LKM R K9	1141019	44 - 46 %				25€



# STANDARON @ - overview whey

LKM-type	Art. No.	fat	protein	lactose mono- hydrate	dry matter	ash		
		Röse- Gottlieb	Kjeldahl	enzym.	102 °C	cryos-copy	packaging unit	prices
		g/100g	g/100g	g/100g	g/100g	°C		
sweet whey	1141031						50 ml	
sour whey	1141032			vailable reference material and the corresponding reference values are available on request				
whey concentrate	1141033		are a	valiable off rec	quest		50 ml	

Your contact persons at DRRR GmbH, Kempten: Team Reference Materials	
Dr. Ulrich Leist	+49 (0)8 31/960 878-0
Your contact persons at LUFA NORD-WEST, Oldenburg Sarah Pietsch	10 (0) 11 (07 07 07 07 07 07 07 07 07 07 07 07 07 0
	+49 (0)4 41/97 352-152

Please use the order from on page 65.

## milk and cream

Art. No.	material description	parameter *	additional information	packaging unit	prices
1101001	UHT milk	fat, dry matter, protein, lactose, freezing point, density, lactulose, water activity	UHT skimmed milk 1,5 % fat 3,5 % fat	2x50 ml	32€
1101002	UHT milk (lactose free)	lactose (< 0.1 %)	1,5 % fat 3,5 % fat	11	32€
1101003	raw milk	fat, dry matter, protein, lactose, freezing point, urea, pH value, casein	-	50 ml	20€
1101004	goat's milk	fat, protein, freezing point	-	on request	32€
1101005	raw cream	fat, protein, dry matter	-	50 ml	22€
1101007	evaporeated milk	fat, dry matter, protein, ash, phosphorus	4 % fat 8 % fat	170 g	32€
1101027	butter milk	phosphatides, fat, dry matter, ash, pH value, acidity acc. Soxhlet-Henkel, density in heat serum	-	500 ml	32€
1121064	dairy drinks	fat, dry matter, protein, sucrose, glucose, lactose, fructose, total sugar (sum of glucose, fructose, sucrose)	-	50 ml	32€
1101025	residues in milk	chloramphenicol, aldrin, dieldrin, PCB 101, trichlormethane, aflatoxin M1, streptomycine, tetracycline	-	230 ml	67€
1101029	Inhibitors in milk	quant. determination of one antibiotic each from the substance groups sulfonamides, penicillins, cephalosporins, quinolones.	-	on request	on request

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## cheese

Art. No.	material description	parameter *	additional information	packaging unit	prices
1111001	processed cheese	fat, dry matter, protein, lactose, sodium chloride, pH value, nitrate, citric acid, phosphorus, ash, total lactic acid	11 - 20 % fat 21 - 30 % fat	100 g	44 €
1111012	processed cheese	natamycin, aflatoxin M1	-	50 g	116€
1111002	fresh cheese	fat, dry matter, protein, total lactic acid	6 - 10 % fat 21 - 25 % fat	175 g	34 €
1111003	curd	fat, dry matter, protein, total lactic acid	-	250 g	30 €
1111004	semi hard cheese	fat, dry matter, protein, sodium chloride	20 - 25 % fat 26 - 29 % fat 30 - 35 % fat	100 g	35€
1111005	hard cheese	fat, dry matter, protein, sodium chloride	20 - 25 % fat 26 - 29 % fat 30 - 35 % fat	100 g	34 €
1111006	soft cheese	fat, dry matter, protein, sodium chloride, pH value	20 - 25 % fat	125 g	30 €

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## other milk products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1111007	butter type 1	soldis non-fat, water content, pH value, cholesterol, fat, sodium chloride	sweet cream butter mild soured butter salted butter	250 g	37 €
1111008	butter type 2	fatty acid composition C4-C20	-	250 g	68€
1111009	yoghurt	fat, dry matter, protein, total lactic acid, pH-value	-	500 g	34 €
1101008	whey	dry matter, protein, NPN, lactose, ash, phosphorus, potassium, calcium	sweet whey sour whey	50 ml	28€
1111010	pudding/dessert	fat, dry matter, protein, lactose, pH- value	-	250 g	37 €
1111011	AMF - anhydrous milk fat	alkalinity, free fatty acids, water content, peroxide value, carotene, butyric acid methyl ester	-	200 ml	32€
1121001	ice-cream	quantitative parameters: fat, milkfat, colouring agent E 124 (cochenille red A), vanillin, vanillic acid, phydroxybenzaldehyde, phydroxybenzoic acid, lactose qualitative parameters: colouring agent E 100 (curcumin), foreign fat, colouring agent ß-carotene (E 160)	-	100 g	37 €
1101006	sour cream - crème fraiche	fat, dry matter, protein, pH value	-	200 g	32 €

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## milk powder

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121002	milk powder type 1	fat, dry matter, protein, lactose, ash, free fat, nitrate, titratable acidity	skimmed milk powder whole milk powder	арр. 80 - 110 g	40€
1121063	milk powder type 2	bulk density after 100 tappings	-	> 110 g	40 €
1121003	skimmed milk powder	WPNI (whey-protein-nitrogen-index)	-	sample set 3 x 20 g	40 €
1121004	milk powder (lactose reduced)	lactose, dry matter	-	50 g	40 €
1121005	milk powder nitrate - nitrite	nitrate, ntirite	-	20 - 30 g	40 €
1121006	milk powder vitamin	vitamin D or vitamin A & C	-	20 - 30 g	40 €
1121007	whey powder	fat, dry matter, protein, lactose, ash, pH value, titratable acidity	sweet whey powder sour whey powder	app. 80 - 110 g	40 €
1121008	casein	fat, water content, protein, lactose, ash, pH value	-	арр. 110 g	40 €

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## fruit and vegetables products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121009	sugar-mix	glucose, fructose, sucrose, maltose, starch, aspartame, acesulfame K, sorbate, saccharin, total sugar (sum of glucose, fructose, sucrose)	several materials available	100 g	67€
1121010	fruit preparation	brix value, pH value, total acid, citric acid, L-malic acid, ash, phosphorous, potassium	several materials available	100 g	67€
1121011	sauerkraut	ascorbic acid, titratable acid, total acid, volatile acid, lactic acid, pH value, sodium chloride, non volatile acid	-	on request	67€
1121012	dried fruits	fat, water content, SO2 (sulphur dioxide)	-	100 g	67€
1121013	dry potato product	water, fat, saturated fatty acids, raw protein, ash, total carbohydrates, starch, sucrose, fibre, sodium	-	250 g	67€
1121014	tomat ketchup type 1	pH-value, titratable acid, citric acid, sodium chloride, glucose, fructose, soluble dry matter, dry matter, sorbic acid, benzoic acid, sucrose (anhydrous), total sugar (sum of glucose, fructose, sucrose)	-	200 g	67€
1121099	tomat ketchup type 2	lycopene	-	200 g	67€
1121065	hot sauce	Capsaicin	-	50 g	67€
1121091	legumes	fat, water content, fibre, nitrogen content, crude protein content	-	on request	67€
1121135	Solvent residues in food	At least 3 different solvents quantitatively, e.g. benzene, toluene, xylene	-	on request	on request

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

alcoholic beverages

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121024	fruit spirit	relative density 20 °C / 20 °C, alcohol, ethyl carbamate, ferment accompanying substance	-	on request	67€
1121026	beer	apparent extract, extract, alcohol content in weight per cent and volume per cent, wort, density, bitterness units, pH value	-	200 ml	67 €
1121098	carbonated soft drinks	carbonation (CO2 content), actual alcohol strength, benzoic acid, sorbic acid, phosphoric acid as PO4	different varieties available (non- alcoholic and alcoholic)	300 - 375 ml	67€
1121128	carbonated soft drinks - spirits	quinine (CAS No 130-95-0)	different varieties available (non- alcoholic and alcoholic)	on request	67 €

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## non-alcoholic beverages

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121015	coffee	water, ash, pH-value, acidity, water soluble extract, caffeine, acrylamide	-	150 g	67 €
1121129	green coffee	loss in mass at 105 °C acc. to ISO 6673	-	on request	55€
1121016	tea	dry matter, ash, water soluble ash, water soluble exract, caffeine, theobromine, theophylline, acid- insoluble ash	-	120 g	67€
1121083	pyrrolizidine alkaloids in tea	quant. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	-	2 x 1 g	135€
1121017	energiedrink	pH-value, taurine, caffeine, inosit, sucrose (anhydrous), glucose (anhydrous), fructose (anhydrous), total sugar (sum of glucose, fructose, sucrose), total acid (pH 8.1) calculated as tartaric acid, relative density [20/20]		500 ml	67€
1121018	vitamin solution	thiamine (vitamin B1), riboflavine (vitamin B2), pyridoxine (vitamin B6), cobalamin (vitamin B12), L-ascorbic acid (vitamin C), α-tocopherol (vitamin E), folic acid (vitamin B11), pantothenic acid (vitamin B5), niacin (vitamin B3)	-	4 g	67€
1121019	orange juice type 1	total carotenoid, fraction I: carotenoid, fraction II: cryptoxanthinester, fraction III: xanthophyllester	-	100 g	67€
1121021	carrot juice	relative density 20 °C / 20 °C, pH- value, titratable acid, sucrose, fructose, glucose, nitrate, β-carotene, α-carotene, total carotene, total sugar (sum of glucose, fructose, sucrose)	-	300 ml	67€
1121058	fruit juice concentrate type 1	brix value, ph value, titratable acidity, citric acid, D-isocitric-acid, L-malic acid, ascorbic acid, lactic acid, citric acid - isocitric acid ration, hesperidin	-	100 g	67 €
1121059	fruit juice concentrate type 2	brix value, titratable acidity, glucose, fructose, sucrose, total sugar (sum of glucose, fructose, sucrose), sugar free extract, glucose-fructose ration, % sucrose of sugar	-	100 g	67€
1121062	fruit juice concentrate type 3	brix value, ph value, titratable acidity, ash, potassium, calcium, magnesium, total phosphorus, sodium, nitrate, copper, iron	-	100 g	67 €
1121053	grape juice	sulphur dioxide (SO2 )	several concentrations of SO2	80 ml	67€
1121054	currant juice	lead, cadmium, arsenic, copper, zinc, iron, tin, mercury, aluminium	<u>-</u>	100 ml	67 €

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## non-alcoholic beverages

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121055	tomato juice	ergosterol	-	50 ml	67 €
1121070	orange juice	Carbendazim	-	on request	67 €
1121092	plant drink (milk alternative)	fat, dry matter, protein, freezing point, density	-	on request	67€
1121114	trace elements in mineral water	uranium, vanadium, boron	-	on request	67 €
1121115	sugar substitutes in food	isomalt, lactite, maltitol, mannitol, sorbitol, xylitol	-	on request	67€
1121125	Quinolizidine alkaloids in Lupins Drink	At least 3 different quinolizidine alkaloids quantitatively, e.g. lupanine, lupinin, spartein	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## egg products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121028	egg products	total lipids, dry matter, protein, pH- value, cholesterol, α-linolenic acid, eicosapentaenoic acid, docosahexaenoic acid, salt content (sodium chloride)	-	100 g	67€
1121029	egg pasta	water, fat, raw protein, ash, chloride, cholesterol, total sterine, egg content, fibre	-	300 g	67€
1121030	mayonnaise	total acid, dry matter, fat, phosphatid- P205, cholesterol, egg yolk content, sorbic acid, benzoic acid, salt content (sodium chloride)	-	150 g	67 €
1121027	residues in liquid egg	fat, nicotine, dioxins, dioxin-like PCBs	-	100 g	100€
1121066	antibiotics in liquid egg	quant. determination of one antibiotic each from the substance groups nitrofurans, sufonamides, tetracycline, chloramphenicol	-	100 g	100 €
1121088	egg powder	fat, alpha-amylase, ash, pH value, water content, salt content, lactic acid, hydroxybutyric acid	-	100 g	67 €
1121126	Hormons in liquid egg	At least one androgen, at least one estrogen and at least one progestin quantitatively	-	on request	100€

## declaration nutritional values

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121044		energy, protein, carbohydrate, sugar, fat, saturated fatty acids, fibre, sodium	-	125 g	67€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## meat products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121031	boiled sausage type 1	fat, water content, ash, protein, collagen, sodium chloride, nitrate, diphosphorus pentoxide (P2O5), calcium, nitrite, aw-value, starch	-	200 g	67€
1121032	boiled sausage type 2	non-protein nitrogen (NPN), collagen degradation products, L-glutamic acid, citric acid, sodium acetate, L- lactat, sodium nitrate, sodium nitrite, ascorbic acid, pH value	-	250 g	67€
1121033	raw sausage type 1	aw-value, pH-value, D- & L-lactic acid, sodium, nitrate, nitrite, sorbic acid, monounsaturated fatty acids, saturated fatty acids, fat	-	200 g	67€
1121060	raw sausage type 2	fat, water content, protein, ash, sodium chloride, hydroxyproline, diphosphorus pentoxide (P2O5), sodium, starch, solubilised milk protein	-	200 g	67€
1121069	vegetarian sausage substitute	fat, protein, dry matter, sodium chloride, ash, fibre	-	150 g	67€
1121093	Detection of soy protein in meat and meat products	soy protein quantitative	-	on request	112€
1121136	Allergens in meat products	Various allergens quantitative: egg, peanut, nuts, celery, mustard	-	on request	on request

## fish and seafood

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121034	fish paste type 1	water, fat, raw protein, ash, sodium chloride, arsenic, iodine	-	100 g	67 €
1121035	fish paste type 2	fat, sorbic acid, benzoic acid, saccharin, cyclamate, citric acid	-	100 g	67€
1121127	Nitrosamines in fish	At least 3 nitrosamines quantitatively, e.g. N-nitrosodimethylamine (NDMA), N-nitrososarcosine (NSAR), N- nitrosohydroxyproline (NHPRO)	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## cereal products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121037	pastries (baking mix)	fat, dry matter, protein, ash, milk fat, starch, sucrose	-	200 g	67€
1121061	pastries (bread)	propionic acid	-	50 g	67€
1121038	flour	moisture content, raw protein, ash, starch, wet gluten content, falling number	-	300 g	67€
1121039	gluten	Gluten (prolamin contamination) in flour, e.g. oat flour and corn flour	-	on request	67€
1121040	butter biscuit	ash, dry matter, raw protein, fat, semimicro butyric acid number, free butyric acid, butyric acid methyl ester, milk fat, starch, cholesterol, sucrose, fibre	-	250 g	67€
1101012	corn aflatoxin	aflatoxin	1.00 ppb - 30.00 ppb 15.00 ppb - 100.00 ppb	50 g	100€
1101013	corn DON	DON	0.10 ppm - 1.25 ppm 1.00 ppm - 6.00 ppm	50 g	100€
1101014	corn fumonisin	fumonisin	0.10 ppm - 1.25 ppm 1.00 ppm - 6.00 ppm	50 g	100€
1101015	corn ochratoxin	ochratoxin	1.00 ppb - 30.00 ppb 15.00 ppb - 100.00 ppb	50 g	100€
1101016	corn zearalenone	zearalenone	50.00 ppb - 1500.00 ppb	50 g	100€
1101017	wheat DON	DON	0.10 ppm - 1.25 ppm 1.00 ppm - 6.00 ppm	50 g	100€
1101018	wheat ochratoxin	ochratoxin	1.00 ppb - 30.00 ppb 15.00 ppb - 100.00 ppb	50 g	100€
1101019	barley DON	DON	0.05 ppm - 3.00 ppm	50 g	100€
1101020	brown rice aflatoxin	aflatoxin	1.00 ppb - 20.00 ppb	50 g	100€
1101021	biscuits (soy)	soy in biscuits	3.00 ppm - 30.00 ppm	6 g	100€
1121071	cereal / cereal products	glyphosat	-	on request	on request

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## cereal products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121072	rice	arsenic	-	on request	on request
1121116	determination of the sedimentation index - Zeleny test (ISO 5529)	sedimentation index (ml) - (acc. To Zeleny)	-	on request	on request
1121117	determination of alveograph properties of dough - ISO 27971	determination of alveograph properties of dough	-	on request	on request
1121118	determination of water absorption and rheological properties using a farinograph - ISO 5530-1	determination of water absorption and rheological properties using a farinograph		on request	on request
1121119	determination of rheological properties using an extensograph - ISO 5530-2	determination of rheological properties using an extensograph	-	on request	on request
1121120	determination of water absorption and rheological properties using a valorigraph - ISO 5530-3	determination of water absorption and rheological properties using a valorigraph	-	on request	on request
1121130	Tropane alkaloids in flour	At least 3 different tropane alkaloids quantitatively, e.g. atropine, scopolamine, hyoscyamine.	-	on request	on request
1121131	Ergot alkaloids in flour	At least 3 different ergot alkaloids quantitatively, e.g., ergotamine, ergometrine, ergosine, ergocristine, ergocryptine, and ergocornine.	-	on request	on request
1121138	amylose in rice	amylose quantitatively	-	on request	on request
1121139	Antioxidants in food	E 320 butylated hydroxyanisole (BHA), E 321 butylated hydroxytoluene (BHT), E 324 ethoxyquin	-	on request	on request

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## infant formula

Art. No.	material description	parameter *	additional information	packaging unit	prices
1101009	jar food	fat, protein, ash, moisture, vitamin C	-	on request	100€
1121041	baby porridge powder type 1	water, fat, raw protein, ash, sucrose, glucose, fructose	-	100 g	67€
1121042	baby porridge powder type 2	sodium, potassium, magnesium, calcium, iron, zinc, iodine	-	100 g	67€
1121043	baby porridge powder type 3	vitamin B1, vitamin B2, vitamin B6, vitamin B12, vitamin A, vitamin C, vitamin E, folic acid, pantothenic acid, biotin	-	200 g	67€
1101010	milk powder IMF type 1	fat, protein, ash, moisture, vitamin A (retinol), vitamin C	-	100 g	125€
1101011	milk powder IMF type 2	sodium, potassium, calcium, magnesium, phosphorus, iron, copper, zinc, manganese	-	on request	125€
1101026	milk powder IMF allergens	gliadin, soy, casein, lactose, ß-lact- globuline	-	on request	100€
1121140	Bisphenol A in infant food	bisphenol A	-	on request	on request

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## other food matrices

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121045	protein powder	protein, riboflavine (vitamin B2), pyridoxine (vitamin B6), ascorbic acid (vitamin C	-	100 g	67€
1121046	delicatessen salad	benzoic acid, sorbic acid, PHB-ester	-	50 g	67€
1121048	chocolate	fat, water content, protein, lactose, milk fat, theobromine, sucrose, total alkaloids, caffeine	chocolate bitter-sweet whole milk chocolate	100 g	67€
1121049	edible fat type 1	distribution of fatty	-	200 ml	67€
1121068	edible fat type 2	iodine, acid value, peroxide, saponification, tocopherole, free fatty acids, p-anisidine value, refraction index, water content, total sterols	-	200 ml	67€
1121050	mustard	dry matter, total acid, sodium chloride, allyl mustard oil, SO2 (sulphur dioxide), fat	-	300 g	67€
1121089	PAHs in animal and vegetable fats and oils	naphthalene, anthracene, benzo(a)anthracene, chrysene, benzo(b)fluoranthen, benzo(k)fluoranthen, benzo(j)fluoranthen, benzo(e)pyren, benzo(a)pyren, dibenz(ah)anthracene (at least 5 of the parameters quantitative)	A PAH concentration in the samples of approximately 0,1-5 µg/kg per PAH is to be expected.	50 g	135€
1121090	Determination of natural thickeners	agar, carrageenan, guar, gum arabic, locust bean gum, sodium alginate and pectin		on request	67€
1121094	aflatoxins in chocolate	aflatoxin B1, B2, G1, G2, total aflatoxin content		on request	135€
1121095	pesticides in chocolate	quant. determination of several pesticides from the fields of herbicides, insecticides and fungicides		on request	135€
1121100	sugar free candies	sucrose, glucose, fructose, water content, total sugar (sum of glucose, fructose, sucrose)	total sugar content < 0.5%, reference method for sugar: enzymatics	on request	67€
1121104	metals in cocoa and chocolate	cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	-	on request	100€
1121105	acrylamide in cocoa and chocolate	acrylamide	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## other food matrices

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121106	cannabis oil	CAS 13956-29-1 Cannabidiol (CBD)	-	on request	100€
1121107	vegetarian bread spread	fat, protein, dry matter, salt, ashes, pH-value	-	on request	67€
1121108	metals in hummus	cadmium, nickel	-	on request	67€
1121109	pyrrolizidine alkaloids in spices	quan. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	-	on request	100€
1121110	nicotine replacement products	Nicotine in nicotine pouches	-	on request	100€
1121123	Metals in tobacco	cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	-	on request	100€
1121124	MCPD and glycidol in edible oil	3-Monochlorpropandiol (3-MCPD), 2- Monochlorpropandiol (2-MCPD), Glycidol	-	on request	100€
1121132	Cannabinoids in hemp seeds	CAS 13956-29-1 Cannabidiol (CBD), total Delta-9-THC	-	on request	on request
1121134	nutritional components in a complete meal	Moisture, Ash, Fat, Nitrogen, Sodium, Chloride	-	on request	on request
1121133	phthalates in edible oil	CAS 28553-12-0 (DINP), CAS 117-81-7 (DEHP), CAS 117-84-0 (DNOP), CAS 26761-40-0 (DIDP), CAS 85-68-7 (BBP), CAS 84-74-2 (DBP), CAS 84-69-5 (DIBP), CAS 131-18-0 (DPP), CAS 71888-89-6 (DIHP), CAS 117-82-8 (DMEP)	-	on request	on request

## mineral oil in food stuff

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151016	mineral oil in low-fat and starch-rich foodstuff	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	50 g	100 €
1151053	mineral oil in cocoa butter and chocolate	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	50 g	100€
1151104	mineral oil in cheese and milk powder	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	on request	100 €
1151017	mineral oil in edible fat and edible oil	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C36-C50	-	15 g	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

# honey and beeswax

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121047	honey type 1	diastase activity, proline, HMF, conductivity, pH-value, water, glycerin, ethanol	-	250 g	67€
1121067	honey type 2	glucose, fructose, maltose, saccharose, turanose, saccharase number, free acids, ash	-	250 g	67€
1121074	antibiotics in honey	quan. determination of one antibiotic of each of the substance groups sulfonamides and tetracyclines as well as of chloramphenicol and streptomycin	-	125 ml	100€
1121075	pesticide residues in honey	The following pesticides can be queried: DEET, cymiazole, malathion, chlorpyriphos, chlorfenvinphos, piperonyl butoxide, bromopropylate, bifenthrin, tetradifon, lambdacyhalothrin, acrinathrin, cispermethrin, trans-permethrin, coumaphos, boscalid, cypermethrin, total tau-fluvalinate, deltamethrin, flumethrin, M-metalaxyl, carbaryl, propargite, acetamiprid, thiamethoxam, amitraz, carbaryl, imidaclopride, metalaxyl, carbendazim, thiaclopride, 2,4-DMP-formamide, 2,4-DMP-me-formamidine, glyphosate.	-	on request	on request
1121076	pyrrolizidine alkaloids in honey	quan. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	-	100 g	100€
1121077	veterinary drug residues in honey	quan. determination of three distinct veterinary drugs or their components, e.g. thymol, phenol, naphthalene, cymiazol, coumaphos or amitraz	-	on request	on request
1121078	GMOs in honey	qualitative detection of different screening elements, e.g. P-35S, T- NOS and P-FMV	-	100 g	100€
1121079	relative frequency of pollen in honey	relative frequency of pollen	-	on request	on request
1121080	falsification honey	Identification of rice syrup and sugar beet syrup in honey, qualitative proficiency test	-	on request	on request
1121081	residues in beeswax	quan. determination of three distinct substances out of the fields varroa veterinary drugs and plant protection agents	-	on request	on request
1121082	falsification beeswax	paraffin wax content, stearin content	-	арр. 100 g	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 65.

## animal feed

Art. No.	material description	parameter * additional packaging information unit			prices
1121111	metals in animal feed	cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	-	on request	77 €
1121112	ingredients animal feed	moisture content, crude protein content, crude oil, crude ash, crude fiber, sugar, lactose, starch	-	on request	77 €
1121113	animal components in animal feed	qualitative identification of animal components	-	on request	67€
1121052	animal feed mycotoxins	OTA, DON, aflatoxin	-	on request	100€
1121097	Fluoride content in animal feed	fluoride content	-	on request	67€
1121137	phytase in feed	phytase quantitatively	-	on request	on request

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

# molecular biological-immunological reference material

Please use the order from on page 65.

## drinking water

Art. No.	material description	parameter *	additional information	packaging unit	prices
11171171	pharmaceutical residues in drinking water	Diclofenac, Ibuprofen	-	on request	67€
1121122	Microplastic in water	particle number	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

# molecular biological-immunological reference material

Please use the order from on page 65.

## determination of animal species

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121056	beef, pork, horse	qualitative detection of the animal species beef, pork and horse (participation with protein and DNA based methods possible) and quantitative detection of the relative amount of animal species (only DNA-based methods possible)	-	50 g	112€
1121057	porcine and beef DNA in gelatine	Qualitative detection of low amounts of porcine (sus scrofa) and beef (bos taurus) DNA in highly processed food matrix (gelatin) in this proficiency testing also the DNA of sheep, goat and fish can be requested	3 different samples (1 x negative, 2 x positive)	3 x 1 g	112€
1121057	porcine and beef DNA in gelatine	Qualitative detection of low amounts of porcine (sus scrofa) and beef (bos taurus) DNA in highly processed food matrix (gelatin) in this proficiency testing also the DNA of sheep, goat and fish can be requested	1 material (positive or negative)	1 g	100€
1121096	porcine DNA in Candy	Qualitative detection of low amounts of porcine (sus scrofa) DNA in candy (gummy candy)	3 different samples	2 g	112€
1121103	detection of the animal species in milk	animal species qualitative	The animal species can be detected in 3 different milks by isoelectric focusing, ELISA or PCR.	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

# molecular biological-immunological reference material

Please use the order from on page 65.

## **GMO**

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121073	soy (GMO)	qualitative detection of the screening elements P-35S, T-NOS and P-FMV as well as the quantitative detection of the relative amount of transgene soy (construct or event specific methods possible)	-	10 g	135€
1121078	GMOs in honey	qualitative detection of different screening elements, e.g. P-35S, T- NOS and P-FMV	-	100 g	100€
1121084	corn (GMO)	qualitative detection of the screening elements P-35S, T-NOS and pat as well as the quantitative detection of the relative amount of transgene corn (construct or event specific methods possible)	-	on request	135€
1121085	rice (GMO)	qualitative detection of the screening elements P-35S, T-NOS and bar as well as the quantitative detection of the relative amount of transgene rice (construct or event specific methods possible)	-	on request	135€
1121086	canola (GMO)	qualitative detection of the screening elements T-NOS, CTP2-CP4EPSPS and P-FMV as well as the quantitative detection of the relative amount of transgene canola (construct or event specific methods possible)	-	on request	135€
1121087	cotton (GMO)	qualitative detection of the screening elements P-35S, T-NOS and pat as well as the quantitative detection of the relative amount of transgene cotton (construct or event specific methods possible)	-	on request	135€
1121101	potato (GMO)	qualitative detection of different screening elements, e.g. P-35S, T-NOS and P-FMV as well as the quantitative detection of the relative amount of transgene potato (construct or event specific methods possible)	-	on request	135€
1121102	sugar beet (GMO)	qualitative detection of different screening elements, e.g. P-35S, T-NOS and P-FMV as well as the quantitative detection of the relative amount of transgene sugar beet (construct or event specific methods possible)	-	on request	135€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

# organoleptic reference material

Please use the order from on page 65.

## ranking test

Art. No.	material description	parameter *	additional information	packaging unit	prices
3301001	water with basic taste (ranking test)	4 samples with different concentrations (sufficient for 5 assessors)	bitter, sweet, sour or salty	sample sets 4 x 500 ml	135€
3301002	beer (ranking test, Diacetyl)	4 samples with different concentrations (sufficient for 5 assessors)	Diacetyl	sample sets 4 x 500 ml	135€
3301003	yoghurt with basic taste (ranking test)	4 samples with different concentrations (sufficient for 5 assessors)	sweet sour salty	sample sets 4 x 500 ml	135€
3301004	yoghurt with flavours (ranking test)	4 samples with different concentrations (sufficient for 5 assessors)	strawberry, cherry, vanilla, peach, lemon	sample sets 4 x 500 ml	135€

## triangle test

Art. No.	material description	parameter *	additional information	packaging unit	prices
3311001	water with basic taste (triangle test)	3 coded samples sets - triads (sufficient for 5 assessors)	bitter, sweet, sour or salty	3 coded sample sets - triads	214 €
3311002	fruit juice (triangle test, flavour taint)	3 coded samples sets - triads (sufficient for 3 assessors)	flavour taint	3 coded sample sets - triads	214 €
3311003	beer (triangle test, Diacetyl)	3 coded samples sets - triads (sufficient for 5 assessors)	Diacetyl	3 coded sample sets - triads	214 €
3311004	yoghurt with basic taste (triangle testt)	3 coded samples sets - triads (sufficient for 5 assessors)	sweet sour salty	3 coded sample sets - triads	214€
3311005	yoghurt with flavours (triangle test)	3 coded samples sets - triads (sufficient for 5 assessors)	strawberry, cherry, vanilla, peach, lemon	3 coded sample sets - triads	214 €
3311007	tuna (triangle test)	3 coded samples sets - triads (sufficient for 5 assessors)	-	sample set 9 x 200g	214 €
3311008	texture test (triangle test)	3 coded samples sets - triads (sufficient for 5 assessors)	-	on request	214 €
3311009	colour check (triangle test)	3 coded samples sets - triads (sufficient for 5 assessors)	-	on request	214 €
3311011	apple juice (triangle test, basic taste)	3 coded samples sets - triads (sufficient for 5 assessors)	-	on request	214 €
3311012	milk (triangle test, flavour taint)	3 coded samples sets - triads (sufficient for 5 assessors)	-	on request	214 €
3311013	coffee infusion (triangle test, flavour taint)	3 coded samples sets - triads (sufficient for 5 assessors)	-	on request	214 €

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

# organoleptic reference material

Please use the order from on page 65.

## threshold value

Art. No.	material description	parameter *	additional information	packaging unit	prices
3321001	drinking water TON acc. to EN 1622	sample set (raw material + instruction) for the threshold odour number determination	characteristic off- flavour in drinking water	sample set for a panel (with 3 assessors)	161€
3321002	drinking water TFN acc. to EN 1622	sample set (raw material + instruction) for the threshold flavour number determination	characteristic off- flavour in drinking water	sample set for a panel (with 3 assessors)	161 €
3321007	fruit juice (threshold value examination, flavour taint)	sample set (raw material + instruction) for the threshold value determination	off-flavour	sample set for one assessor	97 €

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

# other products / services

material description	description	additional information	packaging unit	price
ADR- security certified DRRR- freezing packaging system RM-ADR VP 1	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 24 hours	VP 1 app. 310 x 250 x 190 mm	16 €
ADR- security certified DRRR- freezing packaging system RM-ADR VP 2	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 48 hours	VP 2 app. 350 x 350 x 300 mm	26 €

65	order fo	rm re	eference material	4	Referenzbüro für Ringversuche und Referenzmaterialien
quantity	material type / n	naterial d	escription / article no.		notes (e.g. time period for regular delivery)
	e that we process t a minimum order	or	+49 (0)8 31/960 878-99 info@DRRR.de		
		0	An offer with the total costs is needed		
		0	A Purchase order from the purchasing depar	tment v	vill follow
DRRR-cus	tomer number				
	company				
company (a	additional line)				
C	contact person				
	street				
•	post-code /city				
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date

conditions.

signature

Deutsches

## quality management / quality assurance

We have collected wide experience in building up and operating process orientated quality management systems. Our experience is based on an intensive quality management qualification (DQG –EOQ quality manager). Feedback of our costumers gives us a wide overview about the various requirements that companies have to pass at audit situations.

As a qualified and examined auditor (DGQ-EOQ auditor quality, TGA) we are capable to estimate a company from different perspectives if quality management system is fit for audit and following we can show potentials for improvement.

We offer assistance for the following questions:

- building up process orientated quality management
- building up of a secure testing agent system
- assessment of quality systems in preparation for audits
- advice in operating effective quality management systems

With our expertise in interpreting ISO 9001 over IFS to DIN 17025 we serve companies of food economy and laboratories.

On the basis of our international activities we also have experience in building up and implementation of quality management systems in developing countries. We place our services at your disposal for international questions.

## seminars / training / consulting

#### **IR-Seminar**

The IR-seminar explains how to analyze different kind of food by IR spectroscopy. Furthermore specific peculiarties for the IR calibartion of selected food will be discussed. The specific peculiarties of the calibration will be explained intensify. How to calibrate? When you have to update the calibration? What is the cause of measurement problems?

The seminar will be complemented by theoretical exercises on IR spectroscopy. In the practical excericise calibration data sets will be testes for suitability and critical data sets will be identifed.

#### **Sensory seminar**

The importance of the sensory in the food stuff industry will be explained and clarified in practice. The current state of new tastes is presented. Furthermore the participant will be enabling to apply the sensory testing methods. The use of sensory methods will be explained and on the basis of various sensory materials implemented.

The sensory measurement uncertainty of each participant will be determined at a practical example.

#### **User-Workshop**

Typical questions in the chemical and microbiological analysis of food, especially dairy products are presented and possible solutions will be demonstrated.

Furthermore efficient ways to increase the laboratory quality will be presented. The seminar is accompanied by the practical experience of users

A lot of space for the exchanging of knowledge and experience is provided at the User-Workshop. Therefore some experts are available as contact persons.

### **Statistics seminar for beginners**

This seminar presents the Binomial-, Poissonand Normal distribution and the application of them. Problem cases and the classis misinterpretation due to a false outlier treatment by the application of the Normal distribution are shown. The seminar is complemented by practical exercises with the notebook.

#### Statistics seminar for advanced learners

This seminar presents the Shapiro-Wilk-Test, qui²-adaptation test, Median and MAD (Median absolute deviation) and their application. Furthermore the participants will be informed about the robust standard deviation after Qmethod and the robust average after Hampel.

The seminar is complemented by practical exercises with the notebook.

## seminars / training / consulting

# Implementation of DIN EN ISO/IEC 17025 in food laboratories

The participants will learn all items to implement a successful internal audit. Furthermore typical errors of the implementation of the audit will be targeted and avoidance strategies are communicated. The reliable identification of the deviation in audits and their successful processing in the form of measures will be trained.

You will benefit of the extensive experience of the DRRR, because the DRRR go through the audit situation in a perspective of 360 ° as an auditor, as an audited person and as a neutral expert.

#### Inhouse-Training

We consider lectures, training and seminars as in important duty. Not primary concerning commercial possibilities but by reason that the knowledge transfer is the most important item in every department of our society.

- Seminar and training (one-day) of handling and implementation of proficiency testing
- Seminar and training (one-day) of operating control charts
- Seminar and training of sensory (customised product sensory)

For special requirements we also offer customised training programmes.

For questions about contents and conditions do no hesitate to contact us.

## Sales terms and delivery conditions

#### Terms of payment

Our prices are net prices (plus 19% value added tax). Customers from European countries can provide us with their EU-VAT-Identification number, then they will be exempt from German value added tax. Terms of payment: 8 days net, without deduction

Fees for specially required customs documents such as import permits or similar will be invoiced according to time and effort.

Our bank details:

Raiffeisenbank in Allgäuer Land / bank code 733 692 64 Account 102350 / IBAN DE 94733692640000102350 BIC code: GENO DEF1DTA Sales tax ID no. DE254613132 tax number 127/124/32207

#### Terms of delivery

Shipping costs for reference materials and proficiency tests will be invoiced according to time and effort. All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the proficiency test can be reclaimed by the DRRR upon request. The DRRR shall bear the shipping costs for the return transport if the materials are reclaimed.

Proficiency tests or reference materials marked "frozen" are shipped with our ADR safety tested frozen packaging system. A packaging fee is charged for the polystyrene box including cooling accumulators and air bubble film as well as the protective outer packaging. Frozen materials are shipped by express service. With the delivery of reference materials, you will receive a quality certificate with the details of the respective reference values as well as associated uncertainties.

### Terms of delivery (risk group 1, 2 and 3)

Proficiency tests or reference materials marked with "Risk Group 1" are not subject to any participation restrictions according to § 44 IfSG (Infektionsschutzgesetz).

For proficiency tests or reference materials marked with "risk group 2, or risk group 3\*\*", we need a permission from your laboratory according to § 44 IfSG (Infektionsschutzgesetz) or similar. Please enclose a copy of the permission with your registration or order.

Our general terms and conditions (Allgemeine Geschäftsbedingungen) are valid!

## General terms and conditions

The German reference office for proficiency testing and reference materials GmbH (hereinafter referred to as DRRR) for freely agreed services, in particular testing, training and expert activities as well as reference materials.

#### § 1 General terms and conditions

The client acknowledges the General Terms and Conditions and price lists valid at the time of placing the order. Deviating terms and conditions of individual clients cannot be accepted.

Collateral agreements, promises and other declarations by the employees of the DRRR are only binding if they are expressly confirmed in writing by the DRRR. This shall also apply to amendments to this clause. If individual regulations within this contract or its components are ineffective, this does not affect the validity of the remaining regulations. The contracting parties shall have a duty, acting in accordance with the principles of good faith, to replace any invalid provision by one which is valid and which produces the same economic outcome as that intended by the invalid provision and providing that such replacement does not result in any change to the content of the contract; the same shall also apply analogously to any matter which requires regulation but for which no provision is made in these Terms and Conditions.

#### § 2 Execution of the order

The orders accepted by the DRRR shall be carried out or expert opinions shall be prepared in accordance with the recognized rules of technology and – unless otherwise agreed in writing – in the manner customary at the DRRR. No responsibility shall be assumed for the correctness of the safety programs or safety regulations on which the tests are based, unless expressly agreed otherwise in writing.

The scope of the DRRR's work shall be specified in writing when the order is placed. If the proper execution of the order results in changes or extensions to the specified scope of the order, such changes or extensions shall be agreed in writing prior to execution. If the Customer can no longer be reasonably expected to adhere to the contract with regard to the changes or extensions, the Customer shall in this case be entitled to withdraw from the contract. However, according to § 649 BGB, the client must pay the agreed remuneration or, in the absence of an agreement, an appropriate remuneration.

The contractual services of the DRRR are deemed to have been rendered upon preparation of the respective final reports or expert reports.

A seminar registration can be cancelled free of charge for up to 6 weeks, after which the customer will be invoiced for the costs of the participants depending on the time and effort involved.

The following cancellation conditions apply to the cancellation of a proficiency testing:

Consolation motification novice.	Permanent registration (D)			
Cancelation notification period:	single (one-time) registration (E)			
up to 2 months hefers the proficiency testing	no costs (D)			
up to 3 months before the proficiency testing	50,00 € (E)			
2 months hefers the profisional testing start	50,00 € (D)			
3 months before the proficiency testing start	half proficiency testing price (E)			
sample shipment – deadline of the results	complete price of the proficiency testing and any further incurred costs (D & E)			

### § 3 Deadlines

The order deadlines specified by the DRRR shall not be binding unless their binding nature has been expressly agreed in written form.

## General terms and conditions

#### § 4 Warranty and liability

The integrity of the sample material to a defined condition is only guaranteed until the first border crossing in the case of foreign shipments.

Safety note: When sending materials of risk group 2, the DRRR must receive a letter from the recipient stating that the recipient is authorized to handle hazardous materials (e.g. pathogenic germs).

The DRRR's warranty only covers the services expressly commissioned to it pursuant to Section 2.

No warranty is thereby assumed for the correctness and functioning of the relevant overall system, measuring instruments or materials to which the examined or tested samples belong; in particular, the DRRR bears no responsibility for packaging, material selection and construction of the examined systems, measuring instruments or assemblies, unless these issues are expressly the subject of the order.

Even in the latter case, the warranty obligation and legal responsibility of the manufacturer are neither limited nor assumed

The warranty obligation of the DRRR is limited to the rectification of an error or defect or, in the absence of a warranted characteristic, to the achievement of this characteristic within a reasonable period of time. If the rectification or creation of the characteristic fails, i.e. if it becomes impossible or unreasonable for the Customer or is refused or unduly delayed by the DRRR, the Customer shall be entitled to demand a reduction in the remuneration or rescission of the contract, at its discretion.

The DRRR shall not be liable for any work performed by the Customer in the event of incorrect proficiency tests or reference materials.

The DRRR only assumes liability for certain properties, in particular for the fact that the service is suitable for the purposes of the Customer, if a corresponding assurance of the properties in question has been given. Any liability for consequential damages from positive breach of contract due to warranted characteristics is excluded, unless the warranty was intended to protect against such consequential damages. Claims for damages of the client from §§ 463, 635 BGB due to the lack of assured characteristics remain unaffected.

If an error or defect that does not represent the absence of a warranted characteristic is due to a circumstance for which the DRRR is responsible, the DRRR shall only be liable for any damage incurred by the Customer as a result thereof per order up to a maximum amount that corresponds to the value of the order agreed in accordance with Section 2

The materials may only be used for the corresponding scientific purpose by trained qualified personnel. The DRRR is in no case responsible and liable for used, unused or unusable samples.

The samples are intended for analytical purposes only. The DRRR assumes no liability if the samples are not used for the intended analytical purposes.

All materials are definitely not suitable for human consumption unless they are sensory materials. Oral ingestion of materials not intended for sensory purposes can be harmful to health.

In the case of sensory materials, it is the responsibility of the test persons themselves to check whether they can test the materials with regard to allergies. The ingredients of the sensory materials are declared.

All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the interlaboratory comparison can be reclaimed by the DRRR upon request. The DRRR will bear the shipping costs for the return transport, if the materials are reclaimed.

The analytical properties of the material can only be guaranteed if the transport, storage and use conditions specified by the DRRR are observed.

For frozen samples, the DRRR only guarantees that the samples will be treated in accordance with the material properties stated in the data sheet. For frozen samples delivered to countries outside the EU, we can only guarantee the sample properties up to the first customs clearance point at the respective EU border.

#### § 5 Exclusion of further liability and claims

The risk (transport and remuneration risk) shall pass to the Customer as soon as the goods have left the DRRR, regardless of whether the goods are transported by the Customer's own or third-party means of transport. Claims for damages by the client are excluded. This does not apply to intent, gross negligence, breach of essential contractual obligations of the DRRR or the lack of properties guaranteed in writing.

All further claims of the client for direct and indirect damage – for whatever legal reason – in particular claims for damages due to positive breach of contract or from tort and for compensation for damage that did not occur on the object of the order itself are excluded. Irrespective of this, the client is obliged to take out the usual insurance against direct and indirect damage.

#### General terms and conditions

#### § 6 Remuneration and payment terms

Unless otherwise stated, the prices are in euros and do not include value added tax. This will be invoiced separately at the currently applicable rate in accordance with the applicable tax regulations.

The goods remain the property of DRRR until they have been paid for in full by the customer.

The fees according to the DRRR's currently valid List of Services shall apply to the calculation of the services unless a fixed price or another basis of assessment has been expressly agreed in writing. In the absence of a valid specification of services, individual contractual arrangements shall be made in each case.

Advances on costs can be requested. Partial invoices can also be issued in accordance with the services rendered. Partial invoices need not be marked as such. The receipt of an invoice does not mean that the DRRR has fully invoiced the order.

The fees are due for payment immediately after invoicing, at the latest by the date printed on the invoice (8 days net, without deduction). Unless another arrangement has been made. If payment is made at a later date, default interest of 2% above EURIBOR will be charged on the outstanding invoice amount for the period between the due date and receipt of payment.

Objections to the invoices of the DRRR must be notified in writing within a preclusive period of 14 days after receipt of the invoice, stating reasons.

#### § 7 Confidentiality and copyright

The DRRR reserves the copyrights to the expert opinions, test results, calculations, etc. prepared by it. The DRRR and its employees may not unauthorizedly disclose or exploit business and operating relationships that come to their knowledge in the course of their work.

The DRRR may take copies for its files of written documents that have been made available to the DRRR for inspection and that are of importance for the performance of the assignment.

If the proficiency test report and the laboratory code are sent by e-mail, no guarantee can be given that confidentiality will be ensured.

#### § 8 Place of jurisdiction, place of performance, applicable law

The place of jurisdiction for the assertion of claims for both parties to the contract is Kempten, provided that the conditions according to § 38 of the German Code of Civil Procedure are met. This applies in particular to dunning proceedings.

The place of performance for all obligations arising from the contract is Kempten, the contractor's registered office.

The contractual relationship and all legal relationships are subject exclusively to the law of the Federal Republic of Germany applicable between domestic contracting parties, excluding the Uniform Law on the Sale of Goods and the United Nations Convention on Contracts for the International Sale of Goods.

#### § 9 Guarantee of services and goods from cooperation partners

For reference materials sold on behalf of our cooperation partners, the following conditions apply with regard to liability and warranty:

The liability of our cooperation partners, their legal representatives and vicarious agents is limited to cases of intent, gross negligence, absence of a warranted characteristic and breach of an obligation, the non-compliance of which would endanger the purpose of the contract. The liability for proven damages due to grossly negligent conduct is limited to the amount of the contractual remuneration; no liability is assumed for consequential damages. Liability is limited to the use of the reference materials for the purposes described in the respective certificate

Our cooperation partners guarantee the application of scientific diligence as well as compliance with the recognized rules of technology.

Our cooperation partners are entitled to rectify any defects that occur. If the rectification of defects fails, the client is entitled to demand a reduction of the remuneration or cancellation of the contract at his discretion. Further warranty claims are excluded.

The warranty is limited to the stated expiration date of the reference materials.

This applies to: ieLab, TGZ AQS Baden-Württemberg



# **Microbiology**

# product catalogue 2023 / 2024



Image source: science photo/Shutterstock.com

# Your laboratory quality for:

microbiological testing

#### In the fields:

· Food and feed

Consumer goods in food contact such as:

- Films
- Paper/board
- Glass/canning/cans

Consumer goods in body contact such as:

- Cosmetics
- Tattoo ink
- Textiles
- Water
- Disinfectant
- Medical devices
- · Building materials
- Parasites

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#### **DRRR** - The company

#### Deutsches Referenzbüro für Ringversuche und Referenzmaterialien GmbH (DRRR GmbH)

#### **Proficiency testing provider**

The DRRR offers laboratories from the processing industry as well as official and private laboratories all aspects of quality assurance from one single source. Our focus is on food, consumer goods, packaging, building materials, plastics (polymers) and textiles, as well as microbiological analysis in these categories.

#### Accreditation ISO/IEC 17043:2010 (A2LA)

The DRRR is an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is only valid for the matrices/parameters listed on the A2LA scope of accreditation certificate [#5494.01].

Whether a proficiency test is covered or not covered by the scope of accreditation by A2LA can be viewed in our online portal (ODIN).

# Accreditation DIN EN ISO/IEC 17043:2010 (DAkkS)

The DRRR is an accredited proficiency testing provider by DAkkS according to DIN EN ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [D-EP-17063-01-00].

Whether a proficiency test is covered or not covered by the scope of accreditation by DAkkS can be viewed in our online portal (ODIN).

#### Reference material producer

We offer many certified reference materials as well as advise on quality matters and quality assurance training in the laboratory and the production.

#### **Customer support**

We provide advice to our customers in all question of validation of chemical-physical, microbiological, organoleptic and physical-mechanical analysis or statistical questions.



More than 500 PT's in 2021

**Accredited PT-provider** 





High-quality reference material

Any time competent contact persons

#### **A2LA-Accreditation (USA)**

The DRRR has successfully completed an accreditation audit by A2LA (American Association for Laboratory Accreditation). We are an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [#5494.01].

#### proficiency testing schemes

After the accredited proficiency tests in the field of mineral and table water and re-cooling water, but also in the field of drinking water, were often carried out successfully with a great response, it was also possible in the past two years to successfully establish new proficiency tests in the field of medical devices, such as testing medical face masks (EN 14683) or the examination of endoscopes. After the build up of a microbiological laboratory was successfully completed within one year, the focus is now again on the development and establishment of new proficiency tests. In various fields such as food (e.g. yeasts and moulds in the matrices dates and sugar solution) or paper / board (inhibition zone test according to DIN EN 1104), the new developments have already started and are expected to be completed by the end of 2022. As every year, we are striving for further developments about which we will inform you in the coming year 2023.

#### Returning of ten result sheets

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds for free.

Please note, that the free of charge service is only valid for returning result sheets by ODIN.

- Check different methods
- Check different lab technicians
- Check different testing equipment

#### **ODIN - proficiency testing online**

# Simply brilliant, your proficiency testing with ODIN (Online Data Information Network).

- Fast and easy online registration / online announcement in our online catalogue
- Direct management and booking of the proficiency testing
- Overview about the registered proficiency testing schemes
- Fast and secure submission of your results via ODIN
- Online access to individual customers reports and certificates
- Supervisor rights available to overview all PTs of a multi-site company
- Saving of costs through booking and submission of your results via ODIN

# Secure payment with IRIS (Internet Remuneration Information Service).

- Easy and safe payment by credit card
- Overview about all invoices
- · Fast and secure online access

You can also pay your invoice via banktransfer or bank check.



**Book Ringtrials Online** 

> Proficiency testing catalog



Enter Results Online

> Booked proficiency testings



Download Reports and Certificates

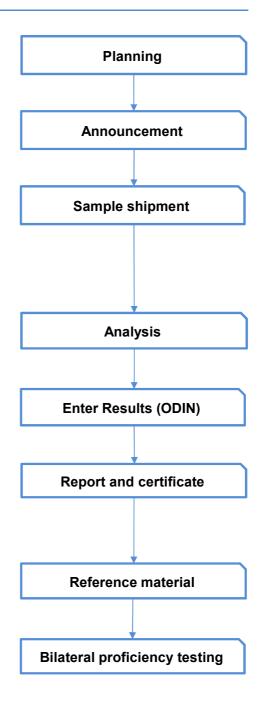
> Booked proficiency testings

### **Proficiency testing organisation**

- A precise planning and organisation of each proficiency testing round
- 2 weeks before we will dispatch the samples you will get an announcement with the proficiency testing details
- According to our requirements, you will receive suitable sample material for the respective proficiency testing scheme.

We reserve the right to have an external subcontractor carry out the sample purchase and any necessary testing.

- After receiving the samples you will have a period of 4 weeks for analysing
- Mail back the results via internet by using our result sheets in an Excel file or fill out our result sheets online in ODIN
- At the latest 3 weeks after the deadline you will get the report (optional by login in ODIN, as hardcopy by regular mail or as pdf-file by e-mail) incl. participation certificate with overview of your lab performance
- After the proficiency testing we can offer you reference materials
- Possibility to perform a bilateral proficiency testing (bPT)



#### Benefits of proficiency testing

#### Why take part in proficiency testing?

- Participation in proficiency testing schemes is required by international standards or national facilities, organizations and customers
- Participants can compare, assure and improve their own performance and quality against other laboratories worldwide
- Laboratories can recognize how well they have been completed with the applied method compared to the other laboratories
- · Saving on the costs of testing
- Unquestionable lab performance towards customers, authorities and certification authorities
- Saving on the costs of lab development and maintenance
- Saving on the costs of lab development and maintenance
- Saving on production costs by avoiding waste of raw material

# Your benefits in DRRR proficiency testing schemes

- Objective and independent impression of your quality and your performance of your routine testing method compared to the other participating laboratories
- Saving the costs, because you have the opportunity to analyze more samples and more parameters in one proficiency testing
- External demonstration of your performance with the results of the proficiency testing
- Build up of your own external quality assurance system with our statistical tools (contains statistical control charts, MS-Excel evaluation files and reference materials). With these tools incorporated your external quality assurance rays unmatched confidence
- Detailed planning and organization of your proficiency testing and an easier, faster and better communication with us



Image source: iStock.com/3dts

#### Statistical methods

#### We work according to:

- ISO Guide 31 / 35
- DIN EN ISO 17034
- DIN EN ISO/IEC 17020 / 17025 / 17043
- ISO 13528

Homogenous and stable sample material

#### **Laboratory performance:**

by calculation of the following paramters:

- z-score
- · z'-score
- CRD-Wert

Calculation of precision data acc. to ISO 5725-2 in many proficiency testing schemes

#### Statistical models:

Depending on the type of the distribution of the data, different statistic models are used:

- Conventional statistics (all values)
- · Conventional statistics (no outliers)
- Robust statistics (Hampel estimator, Q-method)
- Robust statistics (Median, MAD/nIQR)
- · Expert laboratory (expert decision)

Selection of statistical method with the chi²-fit test



Additional extended method evaluation (in case data are available)



You are not satisfied with your laboratory performance: What can you do?

Due to your showed laboratory performance you have been asked by the accreditation body, the monitoring authority or your customer to initiate measures to improve your laboratory performance.

These measures are often connected with considerable efforts in the laboratory and you only have a short time frame. In many cases the proof of a successful measure processing, by participation in a new proficiency testing round, is only possible in the following year. Until now it does not exist a possibility for a spontaneous performance review to equalize a previous unsatisfactory proficiency testing result.

New: The bilateral proficiency testing (bPT)!

You can book and perform individually and flexibly the bilateral proficiency testing during a determined time period.

You receive a proficiency testing sample for analyzing. You submit the results of the testing. After that you will get your proof of performance as a z'-score calculation in the form of a certificate within 1 - 2 weeks.

The performance evaluation refers to the previous regular proficiency testing, so that you can connect the bPT to the regular proficiency testing round. The used sample material is derived from a previous proficiency testing round and provides the possibility of a comparable performance evaluation with the regular proficiency testing.

#### Your terms and conditions:

Participation in a bPT is open to all laboratories. Prior participation in our regular proficiency tests is not necessary.

The report of this proficiency testing is not older than ten weeks. You register within these ten weeks for the bPT and the performance is confirmed by the DRRR. The testing period is dependent on the technical factors (parameter, matrix etc.) and will be agreed individually\*. When this time is over after the sample shipment and you do not have sent us your results in this time, we can not evaluate your results and issue a certificate for you.

(\* normally not longer than 1 - 2 weeks)
The bPT is not in the scope of accreditation of
the DRRR. The realization of the bPT depends
on the availability of the material.

#### Costs bPT

The costs are identical to the costs of the respective proficiency test from our standard program (see ODIN) plus shipping costs.

Alternative you can also order reference material.

#### **Proficiency testing**

#### **Features**

The microbiological proficiency testing rounds are characterized by the application of vegetative microorganisms and lyophylisates. This means that we are exclusively working with

- · living bacteria
- · living yeasts and moulds

in our real matrices.

Vegetative microorganisms

#### **Testing with matrix reference**

Through the use of vegetative microorganisms we ensure that the bacteria have an actual matrix reference and the participants can use their own nutrient media and their internal testing method in a real system of matrix and microorganism.

**Matrix reference** 

#### Use of mono germ systems

we substantially apply "mono germ systems" which means that only 1 germ or bacterium has to be analyzed in the corresponding proficiency testing. Due to that fact we are able to avoid unrequested negative effects caused by other microorganisms during the analysis and the following evaluation of the results.

Mono germ systems

#### Statistical evaluation

Take advantage of our statistical evaluation system. The evaluation of the proficiency testing is based on the highest scientific and statistical level. Therefore the participating laboratories have a very precise feedback on their actual performance.

#### **Evaluation**

#### **Laboratory Measurement**

By using our market-leading statistical evaluation, additional information such as laboratory uncertainty and various scattering of each laboraotires can be presented.

Market-leading statistical evaluation

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 30 of this catalogue.

#### milk and cream

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010013	E.coli milk 1 risk group 1, frozen	E.coli, total count quantitative (2 samples milk)	May-23	Login or register
2010463	E.coli milk 2 risk group 1, frozen	E.coli, total count quantitative (2 samples milk)	Sep-23	
2010033	Enterobact. milk 1 risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples milk)	May-23	
2010465	Enterobact. milk 2 risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples milk)	Nov-23	
2010089	Campylobacter spp. milk	Campylobacter spp. qualitative	Feb-23	
2010003	risk group 2, frozen	(3 samples milk)	Feb-24	
2010467	aerobic spores milk risk group 1, frozen	aerobic mesophilic spores, total count quantitative (2 samples milk)	May-23	
2010546	psychrotrophic bacteria milk risk group 1, frozen	psychrotrophic total count (7°C), psychrotrophic total count (21°C) quantitative (2 samples milk)	Aug-23	
2010604	EHEC O157 milk risk grup 3**, frozen	EHEC O157 qualitative (3 samples milk)	Jul-23	
2010606	EHEC O104 milk risk grup 3**, frozen	EHEC O104 qualitative (3 samples milk)	Jul-23	
2010608	EHEC Screening milk risk grup 3**, frozen	at least 1 of the EHEC strain O26, O103, O111, O145, O157, O104, O121 and O118 (3 samples milk)	Jul-23	
2010612	total count in milk 1 risk group 1, frozen	aerobic total count (2 samples milk)	May-23	
2010614	total count in milk 2 risk group 1, frozen	aerobic total count (2 samples milk)	Sep-23	
2010926	Geotrichum spp. in milk (lactic mould) risk group 1, frozen	Geotrichum spp., aerobic total count (2 samples milk)	Nov-23	
2010924	yeasts in milk risk group 1, frozen	yeasts, aerobic total count (2 samples milk)	Sep-23	
2010944	norovirus milk risk group 2, frozen	determination of norovirus qualitative (3 samples)	Aug-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

### other milk products

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010317	characteristic microorganisms yoghurt risk group 1	Lactobacillus bulgaricus, Streptococcus thermophilus (2 samples à 10g yoghurt)	Sep-23	Login or register

#### cheese

Art. No.	Proficiency testing type [A]	requested parameters	period
2010111	E.coli cheese risk group 1, frozen	E.coli, total count quantitative (2 samples cheese, 2 samples reference solution)	Jul-23
2010176	yeasts cheese risk group 1, frozen	Yeasts, total count quantitative (2 samples cheese)	May-23
2010178	moulds cheese risk group 1, frozen	Moulds, total count quantitative (2 samples cheese)	May-23
2010137	Listeria cheese risk group 2, frozen	Listeria monocytogenes qualitative (3 samples cheese)	Aug-23
2010469	coagulase-positive Staphylococcus cheese risk group 2, frozen	coagulase-positive Staphylococcus, total count quantitative (2 samples cheese)	Jul-23
2010471	Enterobact. cheese risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples cheese, 2 samples reference solution)	Jul-23
2010156	Bacillus cereus processed cheese risk group 2, frozen	Bacillus Cereus, total count quantitative (2 samples processed cheese)	May-23

#### ice-cream

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Art. No.	Proficiency testing type [A]	requested parameters	period
2010548	Enterobact. ice-cream risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples ice-cream, 2 samples reference solution)	Jun-23
2010550	Salmonella spp. ice-cream risk group 2, frozen	Salmonella spp. qualitative (3 samples ice-cream)	Jun-23
2010552	E.coli ice-cream risk group 1, frozen	E.coli, total count quantitative (2 samples ice-cream, 2 samples reference solution)	Jun-23
2010554	L.monocytogenes ice-cream risk group 2, frozen	Listeria monocytogenes qualitative (3 samples ice-cream)	Jun-23

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

### milk powder

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010160	Coliforme bact. milk powder risk group 1, frozen	Coliforme total count, aerobic total count quantitative (2 samples milk powder)	May-23	Login or register
2010063	yeasts milk powder 1	yeasts, total count quantitative	Jan-23	
2010003	risk group 1, frozen	(2 samples milk powder)	Jan-24	
2010473	yeasts milk powder 2 risk group 1, frozen	yeasts, total count quantitative (2 samples milk powder)	Sep-23	
2010065	moulds milk powder 1	moulds, total count quantitative	Feb-23	
2010003	risk group 1, frozen	(2 samples milk powder)	Feb-24	
2010475	moulds milk powder 2 risk group 1, frozen	moulds, total count quantitative (2 samples milk powder)	Nov-23	
2010477	Enterobact. milk powder	Enterobacteriaceae, total count quantitative	Jan-23	
2010477	risk group 1, frozen	(2 samples milk powder, 2 samples reference solution)	Jan-24	
2010479	E.coli milk powder	E.coli, total count quantitative (2 samples milk powder, 2 samples reference solution)	Jan-23	
2010473	risk group 1, frozen		Jan-24	
2010481	lactobacillus milk powder risk group 1, frozen	lactobacillus, total count quantitative (2 samples milk powder)	Nov-23	
2010483	Shigella spp. milk powder risk group 2, frozen	Shigella spp. qualitative (3 samples milk powder)	May-23	
2010095	Enterococcus milk powder risk group 1, frozen	Enterococcus, total count quantitative (2 samples milk powder)	Apr-23	
2010057	Clostridia milk powder risk group 2, frozen	sulfite-reducing Clostridia, anaerobic, mesophilic, sulfite-reducing spores, anaerobic total count, C.perfringens quantitative (2 samples milk powder)	Jun-23	
2010940	Clostridia milk powder qualitative risk group 2, frozen	sulfit-reducing Clostridia (SRC) qualitative (3 samples milk powder)	Jun-23	
2010109	Bacillus cereus milk powder risk group 2, frozen	Bacillus Cereus, total count quantitative (2 samples milk powder)	May-23	
2010932	Bacillus cereus milk powder qualitative risk group 2, frozen	B.cereus qualitative (3 samples milk powder)	May-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

### milk powder

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010081	Cronobacter spp. milk	Cronobacter spp. (= Enterobacter Sakazakii) qualitative	Mar-23	Login or register
2010001	risk group 2, frozen	(3 samples milk powder)	Mar-24	
2010148	Salmonella spp. milk powder	Salmonella spp. qualitative	Mar-23	
2010140	risk group 2, frozen	(3 samples milk powder)	Mar-24	
2010485	Salmonella spp. milk powder 2 risk group 2, frozen	Salmonella spp. qualitative (3 samples milk powder)	Nov-23	
2040002	coagulase-positive	coagulase-positive Staphylococcus, total	Mar-23	
2010083	Staphylococcus milk powder risk group 2, frozen	count quantitative (2 samples milk powder)	Mar-24	
2010930	coagulase-positive Staphylococcus milk powder	coagulase-positive Staphylococcus qualitative (3 samples milk powder)	Mar-23	
2010930	qualitative risk group 2, frozen		Mar-24	
0040050	Listeria milk powder 1	Listeria monocytogenes quantitative and qualitative, total count	Jan-23	
2010059	risk group 2, frozen	(3 samples for qualitative testing, 2 samples for quantitative testing)	Jan-24	
2010153	Listeria milk powder 2 risk group 2, frozen	Listeria monocytogenes quantitative and qualitative, total count (3 samples for qualitative testing, 2 samples for quantitative testing)	Aug-23	
2010534	thermophilic bacteria (55 °C) milk powder risk group 1, frozen	thermophilic aerobic total count (55 °C, vegetative), thermalresistant Spores of thermophilic bacteria (2 samples milk powder)	Sep-23	
2010934	anaerobic, mesophilic spores milk powder risk group 2, frozen	anaerobic, mesophilic spores milk powder total count quantitative (2 samples milk powder)	Jun-23	
2010938	Pseudomonas spp. milk powder qualitative risk group 1, frozen	Pseudomonas spp. qualitative (3 samples milk powder)	May-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

### fruit and vegetables products

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010043	yeasts fruit preparation risk group 1, frozen	yeasts quantitative and qualitative (3 samples for qualitative testing, 2 samples for quantitative testing)	Sep-23	Login or register
2010101	moulds fruit preparation risk group 1, frozen	moulds quantitative and qualitative (3 samples for qualitative testing, 2 samples for quantitative testing)	Sep-23	
2010487	Listeria vegetables qualitative risk group 2, frozen	Listeria monocytogenes qualitative (3 samples vegetables)	Aug-23	
2010489	Listeria vegetables quantitative risk group 2, frozen	Listeria monocytogenes, total count quantitative (2 samples vegetables)	Aug-23	
2010536	osmophilic yeasts sugar solution risk group 1, frozen	osmophilic yeasts, total count quantitative (2 samples sugar solution)	Jun-23	
2010538	osmophilic moulds sugar solution risk group 1, frozen	osmophilic moulds, total count quantitative (2 samples sugar solution)	Jun-23	
2010563	yeasts dates risk group 1, frozen	yeasts, aerobic total count quantitative (2 Psamples dates)	Jun-23	
2010565	moulds dates risk group 1, frozen	moulds, aerobic total count quantitative (2 Psamples dates)	Jun-23	

#### egg products

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Art. No.	Proficiency testing type [A]	requested parameters	period
2010495	Enterobact. egg products risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples egg product, 2 samples reference solution)	Dec-23
	Salmonella spp. mayonnaise risk group 2, frozen	Salmonella spp. qualitative (3 samples mayonaise)	Dec-23
2010530	Salmonella spp. egg products risk group 2, frozen	Salmonella spp. qualitative (3 samples egg products)	Dec-23
170110:3.37	E.coli egg products risk group 1, frozen	E.coli, total count quantitative (2 samples egg product, 2 samples reference solution)	Dec-23

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 30 of this catalogue.

### non-alcoholic beverages

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010097	E.coli fruit juice risk group 1, frozen	E.coli, total count quantitative (2 samples fruit juice)	Apr-23	Login or register
2010199	spoiling agents in fruit juice concentrate and beverage compounds 1 risk group 1, frozen	1 microorganism out of 3 different classes: moulds, yeasts and acid-tolerant bacteria (3 samples for qualitative testing, 2 samples for quantitative testing)	Apr-23	
2010491	spoiling agents in fruit juice concentrate and beverage compounds 2 risk group 1, frozen	1 microorganism out of 3 different classes: lactic acid bacteria, yeasts and acid-tolerant, gram-negative bacteria (3 samples for qualitative testing, 2 samples for quantitative testing)	Nov-23	
2010493	Alicyclobacillus spp. in fruit juice concentrate and beverage compounds qualitative risk group 1, frozen	Alicyclobacillus spp. qualitative (3 samples fruit juice concentrate and beverage compounds)	Oct-23	
2010544	Salmonella spp. Tee	Salmonella spp. qualitative (3 samples tea)	Nov-23	
2010592	yeasts fruit juice concentrate risk group 1, frozen	yeasts, total count quantitative (2 samples fruit juice concentrate)	Apr-23	
2010594	moulds fruit juice concentrate	moulds, total count quantitative (2 samples fruit juice concentrate)	Apr-23	
2010596	lactobacillus fruit juice concentrate risk group 1, frozen	lactobacillus, total count quantitative (2 samples fruit juice concentrate)	Apr-23	
2010598	acetic acid bacteria fruit juice concentrate risk group 1, frozen	acetic acid bacteria (acid tolerant, gram- negative bacteria), total count quantitative (2 samples fruit juice concentrate)	Apr-23	
2010946	E.coli coffee risk group 1, frozen	E.coli, total count (2 samples coffee)	Aug-23	
2010948	Coliforme bacteria coffee risk group 1, frozen	coliforme bacteria, total count (2 samples coffee)	Aug-23	

### alcoholic beverages

Art. No.	Proficiency testing type [A]	requested parameters	period	
2010275	Dekkera bruxellensis wine qualitative	Dekkera bruxellensis qualitative (3 samples)	Aug-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

### meat products

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
0040005	E.coli ground meat 1	E.coli, total count quantitative	Mar-23	Login or register
2010035	risk group 1, frozen	(2 samples ground meat, 2 samples reference solution)	Mar-24	
2010499	E.coli ground meat 2 risk group 1, frozen	E.coli, total count quantitative (2 samples ground meat, 2 samples reference solution)	Nov-23	
2010039	Enterobact. ground meat 1	Enterobacteriaceae, total count quantitative	Mar-23	
2010039	risk group 1, frozen	(2 samples ground meat, 2 samples reference solution)	Mar-24	
2010501	Enterobact. ground meat 2 risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples ground meat, 2 samples reference solution)	Nov-23	
2010142	coagulase-positive	coagulase-positive Staphylococcus, total	Mar-23	
2010142	Staphylococcus ground meat risk group 2, frozen	count quantitative (2 samples ground, meat)	Mar-24	
2010110	Salmonella spp. ground meat	Salmonella spp. qualitative	Mar-23	
2010140	1 risk group 2, frozen	(3 samples ground meat)	Mar-24	
2010503	Salmonella spp. ground meat 2 risk group 2, frozen	Salmonella spp. qualitative (3 samples ground meat)	Nov-23	
2010174	Pseudomonas spp. ground meat risk group 2, frozen	Pseudomonas spp., total count quantitative (2 samples ground meat)	May-23	
2010151	Listeria ground meat	Listeria monocytogenes qualitative	Mar-23	
2010151	qualitative 1 risk group 2, frozen	(3 samples ground meat)	Mar-24	
2010505	Listeria ground meat qualitative 2 risk group 2, frozen	Listeria monocytogenes qualitative (3 samples ground meat)	Aug-23	
2010507	Listeria ground meat quantitative risk group 2, frozen	Listeria monocytogenes, total count quantitative (2 samples ground meat)	Aug-23	
2010212	lactobacillus ground meat	lactobacillus, total count quantitative	Mar-23	
2010212	risk group 1, frozen	(2 samples ground meat)	Mar-24	
2010146	Campylobacter spp. poultry	Campylobacter spp. qualitative	Feb-23	
2010140	meat risk group 2, frozen	(3 samples poultry)	Feb-24	
2010936	Coliforme bacteria ground meat risk group 1, frozen	coliforme bacteria, total count quantitative (2 samples ground meat)	Aug-23	
2010942	Clostridia ground meat risk group 2, frozen	sulfit-reducing Clostridia (SRC), anaerobic total count, sulfit-reducing spores, C.perfringens quantitative (2 samples ground meat)	Jun-23	
2010277	Brochothrix thermosphacta ground meat qualitataive risk group 1, frozen	Brochothrix thermosphacta qualitative (3 samples	Aug-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 30 of this catalogue.

#### fish and seafood

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010509	Yersinia enterocolitica seafood risk group 2, frozen	Yersinia enterocolitica qualitative (3 samples seafood)	May-23	Login or register
2010511	pathogenic Vibrio spp. seafood risk group 2, frozen	pathogenic Vibrio spp. qualitative (3 samples seafood)	May-23	
2010540	Salmonella spp. seafood risk group 2, frozen	Salmonella spp. qualitative (3 samples seafood)	May-23	

#### infant formula

Art. No.	Proficiency testing type [A]	requested parameters	period
2010521	infant food variation 1 risk group 2	minimum 1 out of variable parameters quantitative: SRC, yeasts, moulds, TVC 30°C; minimum 1 out of variable parameters qualitative: and Salmonella spp., Cronobacter spp. and Enterobacteriaceae (3-6 samples baby food)	Aug-23
2010195	infant food variation 2 risk group 2	minimum 1 out of variable parameters quantitative: B.cereus,Coliforms, SRC and minimum 1 out of variable parameters qualitative: Listeria spp., E.coli and coagulase-positive Staphylococcus (2-5 samples baby food)	Aug-23
2010182	Bifidobacteria infant food	Bifidobacteria quantitative (2 samples baby food)	May-23
2010117	identification of germs infant food risk group 1/2	variable germs (1-3 samples baby food)	Aug-23
2010273	Enterobacteriaceae infant formula (powder) qualitative	Enterobacteriaceae qualitative (3 samples)	Aug-23

#### animal feed

Art. No.	Proficiency testing type [A]	requested parameters	period	
2010188	Clostridia animal feed risk group 2, frozen	sulfite-reducing Clostridia (vegetative), lactobacilli, anaerobic mesophilic sulfite- reducing spores, anaerobic mesophilic total spores quantitative (2 samples animal feed)	Jun-23	
	Salmonella spp. animal feed risk group 2, frozen	Salmonella spp. qualitative (3 samples animal feed)	Dec-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

#### other food matrices

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010144	Salmonella spp. chocolate	Salmonella spp. qualitative	Mar-23	Login or register
2010144	risk group 2, frozen	3 camples chocolate)	Mar-24	
2010513	Listeria convenience products risk group 2, frozen	Listeria monocytogenes qualitative (3 samples prepared meal)	Aug-23	
2010515	Salmonella spp. spice powder risk group 2, frozen	Salmonella spp. qualitative (3 samples spice powder)	Dec-23	
2010542	Salmonella spp. herbage risk group 2, frozen	Salmonella spp. qualitative (3 samples herbage)	Dec-23	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

#### **Consumer goods in food contact:**

#### films

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
170110119	moulds foil packaging risk group 1	determination of surface bacteria count moulds quantitative (2 samples á 2 foil samples)	Sep-23	Login or register
2010191	aerobic bacteria foil packaging risk group 1	determination of surface bacteria count aerobic total count quantitative (2 samples á 2 foil samples)	Sep-23	

### paper / board

Art. No.	Proficiency testing type [A]	requested parameters	period	
17010337	spore-forming bacteria board risk group 1	determination of spores of aerobic spore- forming bacteria quantitative (2-4 samples)	Sep-23	
2010279	Determination of transition of antimicrobial components (EN 1104; inhinbition zone test)	Determination of transition of antimicrobial components (EN 1104; inhinbition zone test) (3 samples)	Sep-23	

### glass / canning / cans

Art. No.	Proficiency testing type [A]	requested parameters	period	
	mesophilic sterility testing tinned food risk group 1, frozen	mesophilic germ load (products with low acidity (pH > 4,5)) (3 samples tinned food)	Sep-23	
	thermophilic sterility testing tinned food risk group 1, frozen	thermophilic germ load (55°C) (products with low acidity (pH > 4,5)) (3 samples tinned food)	Sep-23	
2010950	anaerobic mesophilic spores tinned food risk group 1, frozen	anaerobic, mesophilic spores qualitative (3 samples tinned food)	Sep-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

#### **Consumer goods in body contact:**

### cosmetics

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010071	aerobic bacteria O/W-emulsion risk group 1, frozen	aerobic bacteria quantitative (2 samples O/W-emulsion)	Oct-23	Login or register
2010079	moulds O/W-emulsion risk group 1, frozen	moulds quantitative (2 samples O/W-emulsion)	Oct-23	
2010077	identification of germs O/W-emulsion risk group 2, frozen	Identification of variable germs qualitative (3 samples O/W-emulsion)	Oct-23	
2010356	S.aureus (ATCC 6538) O/W-emulsion risk group 2, frozen	S.aureus qualitative (3 samples O/W-emulsion)	Oct-23	
2010358	E.coli (ATCC 8739)  O/W-emulsion risk group 2, frozen	E.coli qualitative (3 samples O/W-emulsion)	Oct-23	
2010360	C.albicans (ATCC 10231) O/W-emulsion risk group 2, frozen	C.albicans qualitative (3 samples O/W-emulsion)	Oct-23	
2010362	Ps.aeruginosa (ATCC 9027) O/W-emulsion risk group 2, frozen	Ps.aeruginosa qualitative (3 samples O/W-emulsion)	Oct-23	
For the following	lowing proficiency testing sc	heme you can not enter your results	online:	
2010085	challenge test O/W-emulsion risk group 2, cooled	challenge test (determination after 0, 2, 7, 14 and 28 days of all 5 relevant microorganism) (5 samples O/W-emulsion)	Apr-23	

#### tattoo ink

Art. No.	Proficiency testing type [A]	requested parameters	period	
2010354	aerobic bacteria in tattoo ink quantitative risk group 1, frozen	aerobic total count quantitative (2 samples tattoo ink)	Oct-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

#### **Consumer goods in body contact:**

#### textiles

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010076	Antimicrobial Fabric Test textiles - AATCC 100	anitbacterial activity quantiative method (1 - 2 textile samples)	May-23	Login or register
2010078	Antibacterial Parallel Streak textiles - AATCC 147	anitbacterial activity qualitative method (Size of the inhibition zones [mm]) (1 - 3 textile samples)	May-23	
2010080	Antibacterial Activity textiles - ISO 20743	- Staphylococcus aureus - Klebsiella pneumoniae anitbacterial activity quantitative using absorption method (incl. plate count procedure) (2 textile samples)	May-23	
2010082	4-field test - microbial reduction textiles EN 16615	anitbacterial activity levurocidal activity quantiative method (1 - 2 textile samples)	May-23	
2011104	Antibacterial Activity textiles - AATCC 90	Antibacterial effect qualitative method (size of inhibition zomes [mm]) (3 textile samples)	May-23	

### plastics - surfaces

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	
2010623	Antibacterial activity plastics - ISO 22196	Measurement of antibacterial activity on plastic surfaces	May-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 30 of this catalogue.

### drinking water

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010654	E.coli / Coliforme bacteria drinking water risk group 1	E.coli / Coliforme bacteria quantitative (2 samples and corresponding matrix)	Apr-23	Login or register
2010656	aerobic total count drinking water risk group 1	aerobic total count quantitative (2 samples and corresponding matrix)	Apr-23	
2010658	Enterococcus drinking water quantitative risk group 1/2	Enterococcus quantitative (2 samples and corresponding matrix)	Oct-23	
2010660	Ps.aeruginosa drinking water	Ps.aeruginosa quantitative (2 samples and corresponding matrix)	Oct-23	
2010662	identification of germs drinking water risk group 2	identification of variable micro organisms quantitative (samples (positive or negative) and corresponding matrix)	Apr-23	
2010114	Legionella spp. drinking water risk group 2	Legionella spp. quantitative (2 samples (positive or negative) and corresponding matrix)	Sep-23	

#### surface- and waste water

Art. No.	Proficiency testing type [A]	requested parameters	period	
2010670	E.coli / Coliforme bacteria surface- and waste water risk group 1	E.coli / Coliforme bacteria quantitative (2 samples and corresponding matrix)	Apr-23	
	Enterococcus surface- and waste water risk group 1/2	Enterococcus quantitative (2 samples and corresponding matrix)	Oct-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

### recooling water

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010958	Legionella recooling water	Legionella quantitative (2 lyophilised samples and water)	Sep-23	Login or register
2010960	Pseudomonas aeruginosa recooling water	Pseudomonas aeruginosa quantitative (2 lyophilised samples and water)	Jul-23	
2010962	total count recooling water	total count quantitative (2 lyophilised samples and water)	Jul-23	

#### mineral water and table water

Art. No.	Proficiency testing type [A]	requested parameters	period
2010674	aerobic total count mineral water and table water risk group 1	aerobic total count at 22 °C, aerobic total count at 37 °C quantitative (2 samples and corresponding matrix)	Apr-23
2010676	streptococci (faecal) mineral water and table water risk group 2	streptococci (faecal) mineral water and table water qualitative (3 samples and corresponding matrix)	Oct-23
2010680	Pseudomonas aeruginosa mineral water and table water risk group 2	Pseudomonas aeruginosa qualitative (3 samples and corresponding matrix)	Oct-23
2010952	anaerobic, sulfit-reducing spores mineral water and table water risk group 2	anaerobic, sulfit-reducing spores qualitative (3 samples and water)	Jun-23
2010134	Coliforme bacteria mineral water and table water risk group 1	Coliforme bacteria qualitative (3 samples and water)	Apr-23
2010138	E.coli mineral water and table water	E.coli qualitative (3 samples and water)	Apr-23

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

#### disinfectant

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010686	bactericidal activity (phase 2 / step 1-test)	quantitative suspension test S.aureus (ATCC 6538), Ps.aeruginosa (ATCC 15442) test conditions: (a) 20 °C (b) 5, 15, 30 and 60 minutes (c) with and without organic load	Jun-23	<u>Login or register</u>
2010688	fungicidal / yeasticidal activity (phase 2 / step 1-test)	quantitative suspension test Aspergillus niger (ATCC 16404), Candida albicans (ATCC 10231) test conditions: (a) 20 °C (b) 5, 15, 30 and 60 minutes (c) with and without organic load	Jun-23	
2010690	mycobactericidal / tuberculocidal activity (phase 2 / step 1-test)	quantitative suspension test Mycobacterium terrae (ATCC 15769), Mycobacterium avium (ATCC 15755) test conditions: (a) 20 °C (b) 5, 15, 30 and 60 minutes (c) with and without organic load	Jun-23	
2010692	sporicidal activity (phase 1-test)	quantitative suspension test Bacillus subtilus-Spores (ATCC 6633) test conditions: (a) 20 °C (b) 30, 30 and 120 minutes	Jun-23	
2010694	virucidal activity (chemical disinfectant, phase 2 / step 1-test)	quantitative suspension test Poliovirus (type 1), Adenovirus (type 5) test conditions: (a) 20 °C (b) 5, 15, 30 and 60 minutes (c) with and without organic load	Jun-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

#### medical devices

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010696	testing for sterilization of medical devices 1 (ISO 11737-1) risk group 1	aerobic total count quantitative (2 samples)	Jun-23	Login or register
2010964	testing for sterilization of medical devices 2 (ISO 11737-1) risk group 1	yeasts quantitative (2 samples)	Jun-23	
2010966	testing for sterilization of medical devices 3 (ISO 11737-1) risk group 1	moulds quantitative (2 samples)	Jun-23	
2010968	testing for sterilization of medical devices 4 (ISO 11737-1) risk group 1	aerobic spores quantitative (2 samples)	Jun-23	
2010281	Tests for in vitro cytotoxicity (ISO 10993-5)	Tests for in vitro cytotoxicity (ISO 10993-5) (3 samples)	Nov-23	
2010283	Testing the germ tightness of packaging materials risk group 1	Testing the germ tightness of packaging materials (2 samples)	Nov-23	
2010657	Identification of microorganisms using MALDI-ToF risk group 2	Identification of microorganisms using MALDI-ToF (1 sample)	Nov-23	
2010321	Test method Medical face masks (EN 14683)	Bacterial filter efficiency where appropriate also pressure difference (1 sample á 12 face masks)	May-23	
2010567	microbiological analysis of endoscopes risk group 2	Germ identification on rinse water (3 samples)	Oct-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 30 of this catalogue.

### other building materials

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010682	moulds (contact samples) risk group 2	moulds quantitative (2 samples building material)	Apr-23	Login or register
2010684	moulds (material samples) risk group 2	moulds qualitative (3 samples building material)	Apr-23	

#### indoor air

Art. No.	Proficiency testing type [A]	requested parameters	period	
12010954	moulds indoor air	moulds quantitative (2 samples gel filter)	Apr-23	
2010956	yeasts indoor air risk group 1	yeasts quantitative (2 samples gel filter)	Apr-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 30 of this catalogue.

### parasites

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010285	cryptosporidia risk group 1	<b>Detection by ELISA</b> (1-3 SAF tubes)	Jun-23	Login or register
2010287	trypanosoma risk group 1	Microscopic detection (1-3 slide preparations)	Jun-23	
2010289	Plasmodium falciparum	Microscopic detection (1-3 slide preparations)	Jun-23	
2010291	ectoparasites risk group 1	Microscopic identification (1-3 slide preparations)	Jun-23	
2010293	Parasites (general)	Microscopic identification (1-3 slide preparations)	Jun-23	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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30	registration form	prom	ciefficy te	sung 🦠	Ringversuche und Referenzmaterialien
Article No. /	proficiency testing type	period	result release and report online (ODIN)	result release by e- mail / fax; report by e- mail	additional sample sets
with pathoge	cy testing schemes labelled with "risl nic microorganisms of your lab if exist ne appropriate form you can find in th	sting in yo	ur country (e.g. "i	nfection protection	•
a participant, you international comp	nal result sheets can be returned for chemical-phy benefit from our international recognized proficiend parisions to check different methods and different l services save costs for your quality assurance! If	cy testing scho ab technician	emes. By submitting up s with one proficiency te	to ten result sheets you a sting round. Your benefit	are now enabled to run :: Participating in DRRR-

product catalogue.

Please note, that the free of charge service is only valid for returning result sheets by ODIN. If you send us your results by mail, fax or postal delivery, the additional result sheet will be charged according the latest product catalogue as a sample set equivalent.

In very rare individual cases an accredited proficiency testing round will not be carried out within the scope of accreditation due to technical or organizational reasons. In these rare cases the DRRR will inform the participants before the start of the proficiency testing round, thus before the sample shipment. An immediately free cancellation for the participants is possible until the date of the sample shipment.

Your registration is an one-time order. It is only valid for one year. Cancelation fees apply when cancelling a registration. If you want to have a permanent-registration please tick the box on the right side.

Please send registration to: fax-no. +49 (0)8 31/960 878-99 e-mail: info@DRRR.de online via www.odin.drrr.de

- this registration is permanent-registration and valid until my cancelation
- An offer with the total costs is needed

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company		
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contact person		
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#### reference material

#### **Importance**

Reference material is a substance or item with one or more defined (known) characteristics and sufficient homogeneity.

#### Benefit of using certified reference materials

These materials are suitable for the calibration of equipment, for the quality assurance of testing methods or to analyse derivate reference materials. DRRR-Reference materials are essential for the chemical, physical, microbiological and sensory analytics as well as for the quality assurance. Standards for the accreditation of testing and calibration laboratories demand the using of reference materials.

The use of reference materials (RM) and certified reference materials (CRM) is an important procedure to avoid mistakes in the lab routine.

#### **Characteristics**

- the reference value is developed by the total number of results of the participants of proficiency testing (consensus value)
- DRRR-Reference materials do always refer to a DRRR-Proficiency testing
- reliable reference values according to advanced statistical evaluation
- independent service without influence of societies organisations and federations

The opportunity to collaborate with the best laboratories for the different requirements assures the high quality of our materials

#### Identification

The reference materials listed on the following pages have specific article numbers to identify the materials. To supply our customers with consistently high quality the DRRR-reference materials will be replaced regularly by corresponding materials during the year. Currently available reference materials and its corresponding reference values will be sent on request. We reserve our right to send you always the latest materials.

Description reference material

Profit with our high quality standards for your lab work

Reference materials meet all requirements of the ISO Guides 31 and 35, but it does not exist any accreditation for reference materials.

Availability and order request of reference material

Please use the order from on page 49.

### milk and cream

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201001	reference solution E.coli risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 ml	71 €
2201002	reference solution Enterobacteriaceae risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 ml	71 €
2201003	E.coli milk risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 ml	71 €
2201004	Enterobacteriaceae milk risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 ml	71 €
2201005	aerobic spores milk risk group 1, frozen	aerobic spores (PC), total count (PC)	quantitative testing	10 ml	71 €
2201006	Campylobacter spp. milk risk group 2, frozen	Campylobacter spp. (CCD)	qualitative testing (3 samples)	3 x 25 ml	102€
2201076	psychrotrophic bacteria milk risk group 1, frozen	psychrotrophic total count (7°C) (PC), psychrotrophic total count (21°C) (PC)	quantitative testing	10 ml	71 €
2201074	yeasts milk risk group 1, frozen	yeasts (YGC), total count (PC)	quantitative testing	10 ml	71 €
2201075	Geotrichum milk (lactic mould) risk group 1, frozen	Geotrichum spp. (YGC) aerobic total count (PC)	quantitative testing	10 ml	71 €
2201091	EHEC O157 milk risk grup 3**, frozen	EHEC 0157	qualitative testing (3 samples) (only available during the period of the proficiency testing)	3 x 25 ml	102€
2201092	EHEC O104 milk risk grup 3**, frozen	EHEC 0104	qualitative testing (3 samples) (only available during the period of the proficiency testing)	3 x 25 ml	102€
2201085	norovirus milk risk group 2, frozen	determination of norovirus	qualitative testing (3 samples)	3 x 25 g	102€

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

### other milk products

Art. No.	material description	parameter *	additional information**	packaging unit	prices
	characteristic microorganisms yoghurt risk group 1	Lactobacillus bulgaricus, Streptococcus thermophilus	quantitative testing	10 g	71 €

#### cheese

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201007	E.coli cheese risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 g	71 €
2201008	L.monocytogenes cheese risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing (3 samples)	3 x 25 g	102€
2201009	Enterobacteriaceae cheese risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 g	71 €
2201010	moulds cheese risk group 1, frozen	Moulds (YGC), total count (PC)	quantitative testing	10 g	71 €
2201011	yeasts cheese risk group 1, frozen	Yeasts (YGC), total count (PC)	quantitative testing	10 g	71 €
2201012	coagulase-positive Staphylococcus cheese risk group 2, frozen	coagulase-positive Staphylococcus (BP), total count (PC)	quantitative testing	10 g	71 €
2201013	B.cereus processed cheese risk group 2, frozen	B.cereus (MYP), total count (PC)	quantitative testing	10 g	71 €

#### ice-cream

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201063	Enterobacteriaceae ice-cream risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 g	71 €
2201065	Salmonella spp. ice-cream risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€
2201064	E.coli ice-cream risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 g	71 €
2201066	L.monocytogenes ice-cream risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing (3 samples)	3 x 25 g	102€

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

### milk powder

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201014	coliforme bacteria milk powder risk group 1, frozen	coliforme total count (VRBL), total count (PC)	quantitative testing	10 g	71 €
2201015	moulds milk powder risk group 1, frozen	moulds (YGC), total count (PC)	quantitative testing	10 g	71 €
2201016	yeasts milk powder risk group 1, frozen	yeasts (YGC), total count (PC)	quantitative testing	10 g	71 €
2201017	E.coli milk powder risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 g	71 €
2201018	Enterobacteriaceae milk powder risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 g	71 €
2201019	Enterococcus milk powder risk group 1, frozen	Enterococcus (CATC), total count (PC)	quantitative testing	10 g	71 €
2201020	Lactobacillus milk powder risk group 1, frozen	Lactobacillus (MRS), total count (PC)	quantitative testing	10 g	71 €
2201021	Shigella spp. milk powder risk group 2, frozen	Shigella spp. (HEA / XLD)	qualitative testing (3 samples)	3 x 25 g	102€
2201022	Clostridia milk powder risk group 2, frozen	sulfite-reducing Clostridia, anaerobic, mesophilic, sulfite-reducing spores, anaerobic total count, C.perfringens	quantitative testing	10 g	71 €
2201083	Clostridia milk powder qualitative risk group 2, frozen	sulfit-reducing Clostridia (SRC)	qualitative testing (3 samples)	3 x 25 g	102€
2201023	B.cereus milk powder risk group 2, frozen	B.cereus (MYP), total count (PC)	quantitative testing	10 g	71 €
2201079	B.cereus milk powder qualitative risk group 2, frozen	B.cereus (MYP)	qualitative testing (3 samples)	3 x 25 g	102€
2201024	Cronobacter spp. milk powder risk group 2, frozen	Cronobacter spp. (ESIA)	qualitative testing (3 samples)	3 x 25 g	102€

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

### milk powder

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201025	Salmonella spp. milk powder risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€
2201026	coagulase-positive Staphylococcus milk powder quantitative risk group 2, frozen	coagulase-positive Staphylococcus (BP), total count (PC)	quantitative testing	10 g	71€
2201078	coagulase-positive Staphylococcus milk powder qualitative risk group 2, frozen	coagulase-positive Staphylococcus (BP)	qualitative testing (3 samples)	3 x 25 g	102€
2201028	L.monocytogenes milk powder qualitative risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing (3 samples)	3 x 25 g	102€
2201027	L.monocytogenes milk powder quantitative risk group 2, frozen	L.monocytogenes (ALOA), total count (PC)	quantitative testing	10 g	71 €
2201062	thermophilic bacteria milk powder risk group 1, frozen	thermophilic aerobic total count (55 °C, vegetative), thermalresistant Spores of thermophilc bacteria	quantitative testing	10 g	71€
2201080	anaerobic, mesophilic spores milk powder risk group 2, frozen	anaerobic, mesophilic spores milk powder, total count quantitative (PC)	quantitative testing	10 g	71 €
2201082	Pseudomonas spp. milk powder risk group 2, frozen	Pseudomonas spp. (CFC)	qualitative testing (3 samples)	3 x 25 g	102€

<sup>\*</sup> sometimes we used more than one method per paramter
\*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

## fruit and vegetables products

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201029	moulds fruit preparation quantitative risk group 1, frozen	Moulds (YGC)	quantitative testing	10 g	71 €
2201030	moulds fruit preparation qualitative risk group 1, frozen	Moulds (YGC)	qualitative testing (3 samples)	3 x 25 g	102€
2201031	yeasts fruit preparation quantitative risk group 1, frozen	yeasts (YGC)	quantitative testing	10 g	71 €
2201032	yeasts fruit preparation qualitative risk group 1, frozen	yeasts (YGC)	qualitative testing (3 samples)	3 x 25 g	102€
2201033	L.monocytogenesvegetable s quantitative risk group 2, frozen	L.monocytogenes (ALOA), total count (PC)	quantitative testing	10 g	71 €
2201034	L.monocytogenesvegetable s quailtative risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing (3 samples)	3 x 25 g	102€
2201067	osmophiilic yeasts sugar solution risk group 1, frozen	osmophilic yeasts (YGC), total count (PC)	quantitative testing	10 g	71 €
2201068	osmophilic moulds sugar solution risk group 1, frozen	osmophilic moulds (YGC), total count (PC)	quantitative testing	10 g	71 €
2201102	yeasts dates risk group 1, frozen	yeasts, aerobic total count	quantitative testing	10 g	71 €
2201103	moulds dates risk group 1, frozen	moulds, aerobic total count	quantitative testing	10 g	71 €

# egg products

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201036	Salmonella spp. mayonnaise risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€
2201037	Enterobacteriaceae egg products risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 g	71 €
2201056	Salmonella spp. egg products risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€
2201057	E.coli egg products risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 g	71€

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

# non-alcoholic beverages

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201035	E.coli fruit juice risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 ml	71 €
2201058	Alicyclobacillus spp. in fruit juice concentrate and beverage compounds qualitative risk group 1, frozen	Alicyclobacillus spp. (BAT)	qualitative testing (3 samples)	10 ml	102€
2201061	Salmonella spp. tea risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€
2201069	yeasts fruit juice concentrate	yeasts (YGC), total count (PC)	quantitative testing	10 ml	71 €
2201070	moulds fruit juice concentrate risk group 1, frozen	moulds (YGC), total count (PC)	quantitative testing	10 ml	71 €
2201071	lactobacillus fruit juice concentrate risk group 1, frozen	Lactobacillus (MRS), total count (PC)	quantitative testing	10 ml	71 €
2201072	acetic acid bacteria fruit juice concentrate risk group 1, frozen	acetic acid bacteria (OSA), total count (PC)	quantitative testing	10 ml	71 €
2201086	E.coli coffee risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 ml	71 €
2201087	Coliforme bacteria coffee risk group 1, frozen	coliforme bacteria (VRB), total count (PC)	quantitative testing	10 ml	71 €
2201090	spoiling agents in fruit juice concentrate and beverage risk group 1, frozen	spoiling agent qualitative microorganisms can vary between moulds, yeasts, acetic acid bacteria or lactobacillus	qualitative testing (3 samples)	3 x 25 g	102€

# alcoholic beverages

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201094	Dekkera bruxellensis wine risk group 1, frozen	Dekkera bruxellensis	qualitative testing (3 samples)	3 x 25 g	102€

<sup>\*</sup> sometimes we used more than one method per paramter

\*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

# meat products

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201038	E.coli ground meat 1 risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 g	71 €
2201039	Enterobact. ground meat 1 risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 g	71 €
2201040	Lactobacillus ground meat risk group 1, frozen	Lactobacillus (MRS), total count (PC)	quantitative testing	10 g	71 €
2201041	coagulase-positive Staphylococcus ground meat risk group 2, frozen	coagulase-positive Staphylococcus (BP), total count (PC)	quantitative testing	10 g	71€
2201042	Pseudomonas spp. ground meat risk group 2, frozen	Pseudomonas spp. (CFC), total count (PC)	quantitative testing	10 g	71 €
2201043	Salmonella spp. ground meat risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€
2201044	L.monocytogenes ground meat quantitative risk group 2, frozen	L.monocytogenes (ALOA), total count (PC)	quantitative testing	10 g	71 €
2201045	L.monocytogenes ground meat qualitative risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing (3 samples)	3 x 25 g	102€
2201046	Campylobacter spp. poultry risk group 2, frozen	Campylobacter spp. (CCD)	qualitative testing (3 samples)	3 x 25 g	102€
2201081	Coliforme Bakterien ground meat risk group 1, frozen	coliforme bacteria, total count (PC)	quantitative testing	10 g	71 €
2201084	Clostridia ground meat risk group 2, frozen	sulfit-reducing Clostridia (SRC), anaerobic total count, sulfit-reducing spores, C.perfringens	quantitative testing	10 g	71 €
2201095	Brochothrix thermosphacta ground meat risk group 1, frozen	Brochothrix thermosphacta	qualitative testing (3 samples)	3 x 25 g	102€

## fish and seafood

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201047	Yersinia enterocolitica seafood risk group 2, frozen	Yersinia enterocolitica	qualitative testing (3 samples)	3 x 25 g	102€
2201048	pathogenic Vibrio spp. seafood risk group 2, frozen	pathogenic Vibrio spp.	qualitative testing (3 samples)	3 x 25 g	102€
2201060	Salmonella spp. seafood risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

## animal feed

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201053	Clostridia animal feed risk group 2, frozen	sulfite-reducing Clostridia (vegetative), lactobacilli, anaerobic mesophilic sulfite-reducing spores, anaerobic mesophilic total spores, total count (PC)	quantitative testing	20 g	71 €
2201054	Salmonella spp. animal feed risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€

# infant formula

Art. No.	material description	parameter *	additional information**	packaging unit	prices
	Enterobacteriaceae infant formula (powder) risk group 1	Enterobacteriaceae	qualitative testing (3 samples)	3 x 25 g	102€

## other food matrices

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201049	Salmonella spp. chocolate risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€
2201050	Salmonella spp. spice powder risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€
2201052	L.monocytogenes convenience products risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing (3 samples)	3 x 25 g	102€
2201059	Salmonella spp. herbage risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing (3 samples)	3 x 25 g	102€

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

## **Consumer goods in food contact:**

## films

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251001	moulds foil packaging risk group 1	surface determination of moulds	quantitative testing	2 foils	71 €
2251002	aerobic bacteria foil packaging risk group 1	surface determination of aerobic bacteria	quantitative testing	2 foils	71 €

# paper / board

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251003	spore-forming bacteria board risk group 1	surface determination of spore- forming bacteria	quantitative testing	1 sample	71 €
2251029	Determination of transition of antimicrobial components (EN 1104; inhinbition zone test)	Determination of transition of antimicrobial components (EN 1104; inhinbition zone test)	qualitative testing (3 samples)	3 samples	102€

# glass / canning / cans

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251004	mesophilic sterility testing tinned food risk group 1, frozen	mesophilic germ load (products with low acidity (pH > 4,5))	qualitative testing (3 samples)	3 x 190 g	102€
2251019	thermophilic sterility testing tinned food risk group 1, frozen	thermophilic germ load (55°C) (products with low acidity (pH > 4,5))	qualitative testing (3 samples)	3 x 190 g	102€
2251020	anaerobic mesophilic spores tinned food risk group 1, frozen	anaerobic, mesophilic spores	qualitative testing (3 samples)	3 x 190 g	102€

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

## **Consumer goods in body contact:**

## cosmetics

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251005	aerobic bacteria O/W- emulsion risk group 1, frozen	aerobic bacteria (CASO)	quantitative testing	10 g	71 €
2251006	moulds O/W-emulsion risk group 1, frozen	moulds (SDA)	quantitative testing	10 g	71 €
2251007	E.coli O/W-emulsion risk group 2 frozen	ATCC 8739 E.coli (CASO)	qualitative testing (3 samples)	3 x 10 g	102€
2251008	S.aureus O/W-emulsion risk group 2, frozen	ATCC 6538 S.aureus (CASO)	qualitative testing (3 samples)	3 x 10 g	102€
2251009	identification of germs O/W-emulsion risk group 2, frozen	identification of germs	qualitative testing (3 samples)	3 x 10 g	102€
2251010	C.albicans O/W-emulsion risk group 2, frozen	ATCC 10231 C.albicans (SDA / PDA)	qualitative testing (3 samples)	3 x 10 g	102€
2251011	Ps.aeruginosa O/W-emulsion risk group 2, frozen	ATCC 9027 Ps.aeruginosa (CASO)	qualitative testing (3 samples)	3 x 10 g	102€
2251028	challenge test O/W- emulsion risk group 2, cooled	challenge test (determination after 0, 2, 7, 14 and 28 days of all 5 relevant microorganism)	on request	on request	71 €

## tatto ink

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251012	aerobic bacteria in tattoo ink risk group 1, frozen	aerobic bacteria (PC)	quantitative testing	10 ml	71 €

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

## **Consumer goods in body contact:**

## textiles

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251024	Antimicrobial Fabric Test textiles - AATCC 100	anitbacterial activity quantiative method	quantitative testing	on request	85€
2251025	Antibacterial Parallel Streak textiles - AATCC 147	anitbacterial activity qualitative method (Size of the inhibition zones [mm])	qualitative testing	on request	85€
2251026	Antibacterial Activity textiles ISO 20743	- Staphylococcus aureus - Klebsiella pneumoniae anitbacterial activity quantitative using absorption method (incl. plate count procedure)	quantitative testing	on request	85€
2251027	4-field test - microbial reduction textiles EN 16615	anitbacterial activity levurocidal activity quantiative method	quantitative testing	on request	85€

# plastics - surfaces

Art. No.	material description	parameter *	additional information**	packaging unit	prices
12251035	,	Measurement of antibacterial activity on plastic surfaces	quantitative testing	on request	85€

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

# drinking water

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2221001	E.coli / Coliforme bacteria drinking water risk group 1	E.coli / Coliforme bacteria	quantitative testing	on request	56 €
2221002	aerobic total count drinking water risk group 1	aerobic total count	quantitative testing	on request	56€
2221003	Enterococcus drinking water quantitative risk group 1/2	Enterococcus	quantitative testing	on request	56€
2221004	Ps. Aeruginosa drinking water risk group 2	Ps. Aeruginosa	quantitative testing	on request	56 €
2221005	identification of germs drinking water risk group 1/2	identification of variable micro organisms	quantitative testing	on request	56 €
2221021	Legionella spp. drinking water risk group 2	Legionella spp. quantitative	quantitative testing	on request	56 €

## surface- and waste water

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2221009	E.coli / Coliforme bacteria surface- and waste water risk group 1	E.coli / Coliforme bacteria	quantitative testing	on request	56 €
2221010	Enterococcus surface- and waste water risk group 2	Enterococcus	quantitative testing	on request	56 €

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

# recooling water

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2221018	Legionella spp. recooling water risk group 2	Legionella spp.	quantitative testing	on request	56€
2221017	Pseudomonas aeruginosa recooling water risk group 2	Pseudomonas aeruginosa	quantitative testing	on request	56 €
2221016	total count recooling water risk group 2	total count	quantitative testing	on request	56 €

# mineral water and table water

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2221011	aerobic total count mineral water and table water risk group 1	aerobic total count at 22 °C, aerobic total count at 37 °C	quantitative testing	on request	56 €
2221012	streptococci (faecal) mineral water and table water risk group 2	streptococci (faecal)	qualitative testing (3 samples)	on request	78€
2221013	E.coli mineral water and table water risk group 1	E.coli	qualitative testing (3 samples)	on request	78€
2221022	Coliforme bacteria mineral water and table water risk group 1	Coliforme bacteria	qualitative testing (3 samples)	on request	78€
2221014	Pseudomonas aeruginosa mineral water and table water risk group 2	Pseudomonas aeruginosa	qualitative testing (3 samples)	on request	78€
2221015	anaerobic, sulfit-reducint spores mineral water and table water risk group 2	anaerobic, sulfit-reducing spores	quantitative testing	on request	56€

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

## disinfectant

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251013	bactericidal activity	S.aureus (ATCC 6538), Ps.aeruginosa (ATCC 15442)	quantitative testing	on request	on request
2251014	fungicidal / yeasticidal activity	Aspergillus niger (ATCC 16404), Candida albicans (ATCC 10231)	quantitative testing	on request	on request
2251015	mycobactericidal / tuberculocidal activity	Mycobacterium terrae (ATCC 15769), Mycobacterium avium (ATCC 15755)	quantitative testing	on request	on request
2251016	sporicidal activity	Bacillus subtilus-Sporens (ATCC 6633)	quantitative testing	on request	on request
2251017	virucidal activity	Poliovirus (type 1), Adenovirus (type 5)	quantitative testing	on request	on request

## medical devices

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251018	testing for sterilization of medical devices 1 (ISO 11737-1) risk group 1	aerobic total count	quantitative testing	1 sample	71 €
2251021	testing for sterilization of medical devices 2 (ISO 11737-1) risk group 1	yeasts	quantitative testing	1 sample	71 €
2251022	testing for sterilization of medical devices 3 (ISO 11737-1) risk group 1	moulds	quantitative testing	1 sample	71€
2251023	testing for sterilization of medical devices 4 (ISO 11737-1) risk group 1	aerobic spores	quantitative testing	1 sample	71 €
2251030	Tests for in vitro cytotoxicity (ISO 10993-5)	Tests for in vitro cytotoxicity (ISO 10993-5)	qualitative testing	3 samples	102€
2251031	Testing the germ tightness of packaging materials risk group 1	moulds	qualitative testing	1 sample	71 €
2251032	Identification of microorganisms using MALDI-ToF	Identification of microorganisms using MALDI-ToF	qualitative testing	1 sample	71 €
2251033	Test method Medical face masks (EN 14683)	Bacterial filter efficiency where appropriate also pressure difference	quantitative testing	1 sample á 5 face masks	71 €
2251034	microbiological analysis of endoscopes risk group 2	Germ identification on rinse water (3 samples)	quantitative testing	on request	71 €

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

# other building materials

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2281001	moulds (contact samples) building material risk group 1/2	Moulds	quantitative testing	on request	on request
2281002	moulds (material samples) building material risk group 1/2	Moulds	qualitative testing (3 samples)	on request	on request

## indoor air

Art. No.	material description	parameter *	additional information**	packaging unit	prices
12221019	moulds indoor air risk group 1	Moulds	quantitative testing	1 filter	71 €
2221020	yeasts indoor air risk group 1	Yeasts	quantitative testing	1 filter	71 €

<sup>\*</sup> sometimes we used more than one method per paramter

<sup>\*\*</sup> The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

# parasites

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201096	cryptosporidia risk group 1	Detection by ELISA	qualitative testing	on request	on request
2201097	trypanosoma risk group 1	Microscopic detection	qualitative testing	on request	on request
2201098	Plasmodium falciparum	Microscopic detection	qualitative testing	on request	on request
2201099	ectoparasites risk group 1	Microscopic identification	qualitative testing	on request	on request
2201100	Parasites (general)	Microscopic identification	qualitative testing	on request	on request

<sup>\*</sup> sometimes we used more than one method per paramter
\*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

# other products / services

Please use the order from on page 49.

material description	description	additional information	packaging unit	price
ADR- security certified DRRR- freezing packaging system RM-ADR VP 1	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 24 hours	VP 1 app. 310 x 250 x 190 mm	16€
ADR- security certified DRRR- freezing packaging system RM-ADR VP 2	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 48 hours	VP 2 app. 350 x 350 x 300 mm	26€

# 49 order form reference material



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quantity	material type / m	naterial de	escription / article no.		notes (e.g. time period for regular delivery)
pathogenic n	nicroorganisms of	your lab i	k group 2, or 3**" we need a per f existing in your country (e.g. " product catalogue on page 57.		
	e that we process t a minimum order	fax-no. or	send order form to: +49 (0)8 31/960 878-99 info@DRRR.de		
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## quality management / quality assurance

We have collected wide experience in building up and operating process orientated quality management systems. Our experience is based on an intensive quality management qualification (DQG –EOQ quality manager). Feedback of our costumers gives us a wide overview about the various requirements that companies have to pass at audit situations.

As a qualified and examined auditor (DGQ-EOQ auditor quality, TGA) we are capable to estimate a company from different perspectives if quality management system is fit for audit and following we can show potentials for improvement.

We offer assistance for the following questions:

- building up process orientated quality management
- building up of a secure testing agent system
- assessment of quality systems in preparation for audits
- advice in operating effective quality management systems

With our expertise in interpreting ISO 9001 over IFS to DIN 17025 we serve companies of food economy and laboratories.

On the basis of our international activities we also have experience in building up and implementation of quality management systems in developing countries. We place our services at your disposal for international questions.

Please do not hesitate to contact us.

## seminars / training / consulting

#### **IR-Seminar**

The IR-seminar explains how to analyze different kind of food by IR spectroscopy. Furthermore specific peculiarties for the IR calibartion of selected food will be discussed. The specific peculiarties of the calibration will be explained intensify. How to calibrate? When you have to update the calibration? What is the cause of measurement problems?

The seminar will be complemented by theoretical exercises on IR spectroscopy. In the practical excericise calibration data sets will be testes for suitability and critical data sets will be identifed.

#### **Sensory seminar**

The importance of the sensory in the food stuff industry will be explained and clarified in practice. The current state of new tastes is presented. Furthermore the participant will be enabling to apply the sensory testing methods. The use of sensory methods will be explained and on the basis of various sensory materials implemented.

The sensory measurement uncertainty of each participant will be determined at a practical example.

#### **User-Workshop**

Typical questions in the chemical and microbiological analysis of food, especially dairy products are presented and possible solutions will be demonstrated.

Furthermore efficient ways to increase the laboratory quality will be presented. The seminar is accompanied by the practical experience of users.

A lot of space for the exchanging of knowledge and experience is provided at the User-Workshop. Therefore some experts are available as contact persons.

### Statistics seminar for beginners

This seminar presents the Binomial-, Poissonand Normal distribution and the application of them. Problem cases and the classis misinterpretation due to a false outlier treatment by the application of the Normal distribution are shown. The seminar is complemented by practical exercises with the notebook.

#### Statistics seminar for advanced learners

This seminar presents the Shapiro-Wilk-Test, qui²-adaptation test, Median and MAD (Median absolute deviation) and their application. Furthermore the participants will be informed about the robust standard deviation after Qmethod and the robust average after Hampel.

The seminar is complemented by practical exercises with the notebook.

## seminars / training / consulting

# Implementation of DIN EN ISO/IEC 17025 in food laboratories

The participants will learn all items to implement a successful internal audit. Furthermore typical errors of the implementation of the audit will be targeted and avoidance strategies are communicated. The reliable identification of the deviation in audits and their successful processing in the form of measures will be trained.

You will benefit of the extensive experience of the DRRR, because the DRRR go through the audit situation in a perspective of 360 ° as an auditor, as an audited person and as a neutral expert.

#### Inhouse-Training

We consider lectures, training and seminars as in important duty. Not primary concerning commercial possibilities but by reason that the knowledge transfer is the most important item in every department of our society.

- Seminar and training (one-day) of handling and implementation of proficiency testing
- Seminar and training (one-day) of operating control charts
- Seminar and training of sensory (customised product sensory)

For special requirements we also offer customised training programmes.

For questions about contents and conditions do no hesitate to contact us.

## Sales terms and delivery conditions

#### Terms of payment

Our prices are net prices (plus 19% value added tax). Customers from European countries can provide us with their EU-VAT-Identification number, then they will be exempt from German value added tax. Terms of payment: 8 days net, without deduction

Fees for specially required customs documents such as import permits or similar will be invoiced according to time and effort.

Our bank details:

Raiffeisenbank in Allgäuer Land / bank code 733 692 64 Account 102350 / IBAN DE 94733692640000102350 BIC code: GENO DEF1DTA Sales tax ID no. DE254613132

tax number 127/124/32207

#### Terms of delivery

Shipping costs for reference materials and proficiency tests will be invoiced according to time and effort. All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the proficiency test can be reclaimed by the DRRR upon request. The DRRR shall bear the shipping costs for the return transport if the materials are reclaimed.

Proficiency tests or reference materials marked "frozen" are shipped with our ADR safety tested frozen packaging system. A packaging fee is charged for the polystyrene box including cooling accumulators and air bubble film as well as the protective outer packaging. Frozen materials are shipped by express service. With the delivery of reference materials, you will receive a quality certificate with the details of the respective reference values as well as associated uncertainties.

#### Terms of delivery (risk group 1, 2 and 3)

Proficiency tests or reference materials marked with "Risk Group 1" are not subject to any participation restrictions according to § 44 IfSG (Infektionsschutzgesetz).

For proficiency tests or reference materials marked with "risk group 2, or risk group 3\*\*", we need a permission from your laboratory according to § 44 IfSG (Infektionsschutzgesetz) or similar. Please enclose a copy of the permission with your registration or order.

Our general terms and conditions (Allgemeine Geschäftsbedingungen) are valid!

## General terms and conditions

The German reference office for proficiency testing and reference materials GmbH (hereinafter referred to as DRRR) for freely agreed services, in particular testing, training and expert activities as well as reference materials.

#### § 1 General terms and conditions

The client acknowledges the General Terms and Conditions and price lists valid at the time of placing the order. Deviating terms and conditions of individual clients cannot be accepted.

Collateral agreements, promises and other declarations by the employees of the DRRR are only binding if they are expressly confirmed in writing by the DRRR. This shall also apply to amendments to this clause. If individual regulations within this contract or its components are ineffective, this does not affect the validity of the remaining regulations. The contracting parties shall have a duty, acting in accordance with the principles of good faith, to replace any invalid provision by one which is valid and which produces the same economic outcome as that intended by the invalid provision and providing that such replacement does not result in any change to the content of the contract; the same shall also apply analogously to any matter which requires regulation but for which no provision is made in these Terms and Conditions.

#### § 2 Execution of the order

The orders accepted by the DRRR shall be carried out or expert opinions shall be prepared in accordance with the recognized rules of technology and – unless otherwise agreed in writing – in the manner customary at the DRRR. No responsibility shall be assumed for the correctness of the safety programs or safety regulations on which the tests are based, unless expressly agreed otherwise in writing.

The scope of the DRRR's work shall be specified in writing when the order is placed. If the proper execution of the order results in changes or extensions to the specified scope of the order, such changes or extensions shall be agreed in writing prior to execution. If the Customer can no longer be reasonably expected to adhere to the contract with regard to the changes or extensions, the Customer shall in this case be entitled to withdraw from the contract. However, according to § 649 BGB, the client must pay the agreed remuneration or, in the absence of an agreement, an appropriate remuneration.

The contractual services of the DRRR are deemed to have been rendered upon preparation of the respective final reports or expert reports.

A seminar registration can be cancelled free of charge for up to 6 weeks, after which the customer will be invoiced for the costs of the participants depending on the time and effort involved.

The following cancellation conditions apply to the cancellation of a proficiency testing:

Canadatian natification pariods	Permanent registration (D)
Cancelation notification period:	single (one-time) registration (E)
un to 2 months hefers the proficional testing	no costs (D)
up to 3 months before the proficiency testing	50,00 € (E)
2 months before the proficional testing start	50,00 € (D)
3 months before the proficiency testing start	half proficiency testing price (E)
sample shipment – deadline of the results	complete price of the proficiency testing and any further incurred costs (D & E)

### § 3 Deadlines

The order deadlines specified by the DRRR shall not be binding unless their binding nature has been expressly agreed in written form.

## General terms and conditions

#### § 4 Warranty and liability

The integrity of the sample material to a defined condition is only guaranteed until the first border crossing in the case of foreign shipments.

Safety note: When sending materials of risk group 2, the DRRR must receive a letter from the recipient stating that the recipient is authorized to handle hazardous materials (e.g. pathogenic germs).

The DRRR's warranty only covers the services expressly commissioned to it pursuant to Section 2.

No warranty is thereby assumed for the correctness and functioning of the relevant overall system, measuring instruments or materials to which the examined or tested samples belong; in particular, the DRRR bears no responsibility for packaging, material selection and construction of the examined systems, measuring instruments or assemblies, unless these issues are expressly the subject of the order.

Even in the latter case, the warranty obligation and legal responsibility of the manufacturer are neither limited nor assumed

The warranty obligation of the DRRR is limited to the rectification of an error or defect or, in the absence of a warranted characteristic, to the achievement of this characteristic within a reasonable period of time. If the rectification or creation of the characteristic fails, i.e. if it becomes impossible or unreasonable for the Customer or is refused or unduly delayed by the DRRR, the Customer shall be entitled to demand a reduction in the remuneration or rescission of the contract, at its discretion.

The DRRR shall not be liable for any work performed by the Customer in the event of incorrect proficiency tests or reference materials.

The DRRR only assumes liability for certain properties, in particular for the fact that the service is suitable for the purposes of the Customer, if a corresponding assurance of the properties in question has been given. Any liability for consequential damages from positive breach of contract due to warranted characteristics is excluded, unless the warranty was intended to protect against such consequential damages. Claims for damages of the client from §§ 463, 635 BGB due to the lack of assured characteristics remain unaffected.

If an error or defect that does not represent the absence of a warranted characteristic is due to a circumstance for which the DRRR is responsible, the DRRR shall only be liable for any damage incurred by the Customer as a result thereof per order up to a maximum amount that corresponds to the value of the order agreed in accordance with Section 2.

The materials may only be used for the corresponding scientific purpose by trained qualified personnel. The DRRR is in no case responsible and liable for used, unused or unusable samples.

The samples are intended for analytical purposes only. The DRRR assumes no liability if the samples are not used for the intended analytical purposes.

All materials are definitely not suitable for human consumption unless they are sensory materials. Oral ingestion of materials not intended for sensory purposes can be harmful to health.

In the case of sensory materials, it is the responsibility of the test persons themselves to check whether they can test the materials with regard to allergies. The ingredients of the sensory materials are declared.

All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the interlaboratory comparison can be reclaimed by the DRRR upon request. The DRRR will bear the shipping costs for the return transport, if the materials are reclaimed.

The analytical properties of the material can only be guaranteed if the transport, storage and use conditions specified by the DRRR are observed.

For frozen samples, the DRRR only guarantees that the samples will be treated in accordance with the material properties stated in the data sheet. For frozen samples delivered to countries outside the EU, we can only guarantee the sample properties up to the first customs clearance point at the respective EU border.

#### § 5 Exclusion of further liability and claims

The risk (transport and remuneration risk) shall pass to the Customer as soon as the goods have left the DRRR, regardless of whether the goods are transported by the Customer's own or third-party means of transport. Claims for damages by the client are excluded. This does not apply to intent, gross negligence, breach of essential contractual obligations of the DRRR or the lack of properties guaranteed in writing.

All further claims of the client for direct and indirect damage – for whatever legal reason – in particular claims for damages due to positive breach of contract or from tort and for compensation for damage that did not occur on the object of the order itself are excluded. Irrespective of this, the client is obliged to take out the usual insurance against direct and indirect damage.

## General terms and conditions

#### § 6 Remuneration and payment terms

Unless otherwise stated, the prices are in euros and do not include value added tax. This will be invoiced separately at the currently applicable rate in accordance with the applicable tax regulations.

The goods remain the property of DRRR until they have been paid for in full by the customer.

The fees according to the DRRR's currently valid List of Services shall apply to the calculation of the services unless a fixed price or another basis of assessment has been expressly agreed in writing. In the absence of a valid specification of services, individual contractual arrangements shall be made in each case.

Advances on costs can be requested. Partial invoices can also be issued in accordance with the services rendered. Partial invoices need not be marked as such. The receipt of an invoice does not mean that the DRRR has fully invoiced the order.

The fees are due for payment immediately after invoicing, at the latest by the date printed on the invoice (8 days net, without deduction). Unless another arrangement has been made. If payment is made at a later date, default interest of 2% above EURIBOR will be charged on the outstanding invoice amount for the period between the due date and receipt of payment.

Objections to the invoices of the DRRR must be notified in writing within a preclusive period of 14 days after receipt of the invoice, stating reasons.

#### § 7 Confidentiality and copyright

The DRRR reserves the copyrights to the expert opinions, test results, calculations, etc. prepared by it. The DRRR and its employees may not unauthorizedly disclose or exploit business and operating relationships that come to their knowledge in the course of their work.

The DRRR may take copies for its files of written documents that have been made available to the DRRR for inspection and that are of importance for the performance of the assignment.

If the proficiency test report and the laboratory code are sent by e-mail, no guarantee can be given that confidentiality will be ensured.

#### § 8 Place of jurisdiction, place of performance, applicable law

The place of jurisdiction for the assertion of claims for both parties to the contract is Kempten, provided that the conditions according to § 38 of the German Code of Civil Procedure are met. This applies in particular to dunning proceedings.

The place of performance for all obligations arising from the contract is Kempten, the contractor's registered office.

The contractual relationship and all legal relationships are subject exclusively to the law of the Federal Republic of Germany applicable between domestic contracting parties, excluding the Uniform Law on the Sale of Goods and the United Nations Convention on Contracts for the International Sale of Goods.

#### § 9 Guarantee of services and goods from cooperation partners

For reference materials sold on behalf of our cooperation partners, the following conditions apply with regard to liability and warranty:

The liability of our cooperation partners, their legal representatives and vicarious agents is limited to cases of intent, gross negligence, absence of a warranted characteristic and breach of an obligation, the non-compliance of which would endanger the purpose of the contract. The liability for proven damages due to grossly negligent conduct is limited to the amount of the contractual remuneration; no liability is assumed for consequential damages. Liability is limited to the use of the reference materials for the purposes described in the respective certificate

Our cooperation partners guarantee the application of scientific diligence as well as compliance with the recognized rules of technology.

Our cooperation partners are entitled to rectify any defects that occur. If the rectification of defects fails, the client is entitled to demand a reduction of the remuneration or cancellation of the contract at his discretion. Further warranty claims are excluded.

The warranty is limited to the stated expiration date of the reference materials.

This applies to: ieLab, TGZ AQS Baden-Württemberg

## Permission for working with pathogenic microorganisms



	Kespt	nisible person.	
	name,	surname	
	street		
	post co	de, city	
	fon		
	e-mail		
L			
	Please	e tick as approprate and e	nclose the necessary documents:
1		sion of a permission for v ting in your country?	vorking with pathogenic microorganisms
	0	yes (please enclose copy)	
	0	no	
2		sion of an exemption for ting in your country?	working with pathogenic microorganisms
	0	yes (please enclose verific	ation document)
	0	no	
3	_	german infection protection	posession of a permission acc. to §44 on law) or an exemption acc. §45 IfSG is
	0	yes (please enclose copy	or verification document)
	0	no	
	please		rmission usually is person-linked, so there is a turnover of staff and send an ion to DRRR GmbH.
-		date	signature



# Consumer goods and Packaging

chemical-physical

organoleptic

# product catalogue 2023 / 2024



Image source: iStock.com/279photo

## In the fields:

Consumer goods / packaging in food contact such as:

- Films
- Paper and board
- Glass / canning / cans

Contamination from packaging

Consumer goods in body contact such as:

- Textiles
- Cosmetics
- Tattoo ink
- Jewellery

Other consumer goods such as:

- Printing inks
- Toys
- Cleaning agent
- Leather
- E-cigarettes

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## **DRRR** - The company

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien GmbH (DRRR GmbH)

# Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

More than 500 PT's in 2021

#### **Proficiency testing provider**

The DRRR offers laboratories from the processing industry as well as official and private laboratories all aspects of quality assurance from one single source. Our focus is on food, consumer goods, packaging, building materials, plastics (polymers) and textiles, as well as microbiological analysis in these categories.

#### Accreditation ISO/IEC 17043:2010 (A2LA)

The DRRR is an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is only valid for the matrices/parameters listed on the A2LA scope of accreditation certificate [#5494.01].

Whether a proficiency test is covered or not covered by the scope of accreditation by A2LA can be viewed in our online portal (ODIN).

**Accredited PT-provider** 





#### Accreditation DIN EN ISO/IEC 17043:2010 (DAkkS)

The DRRR is an accredited proficiency testing provider by DAkkS according to DIN EN ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [D-EP-17063-01-00].

Whether a proficiency test is covered or not covered by the scope of accreditation by DAkkS can be viewed in our online portal (ODIN).

#### Reference material producer

We offer many certified reference materials as well as advise on quality matters and quality assurance training in the laboratory and the production.

### **Customer support**

We provide advice to our customers in all question of validation of chemical-physical, microbiological, organoleptic and physical-mechanical analysis or statistical questions.

High-quality reference material

Any time competent contact persons

#### **A2LA-Accreditation (USA)**

The DRRR has successfully completed an accreditation audit by A2LA (American Association for Laboratory Accreditation). We are an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [#5494.01].

#### Footwear materials - Dimethylfumarate (DMFU) and Dimethylformamide (DMF)

Following numerous requests from customers, the DRRR is including proficiency tests on ISO 16186 (DMFU) and ISO 16189 (DMF) in its program this year. DMFU is banned in the EU due to severe allergic reactions and shoes containing DMFU are not allowed to be marketed. However, in other EU countries, the biocide DMFU is used to protect leather from mold. DMF is used as a solvent in the production of polyurethane-coated materials and contact can be harmful to health. Therefore, regular testing of leather and other footwear materials for DMFU and DMF content is important.

#### Identification of microplastics

Microplastics are a major problem for our environment. Therefore it is important on the one hand to check the content of microplastics (see our proficiency test "Microplastics in water") and on the other hand it is increasingly important to identify microplastics as well. Therefore, the DRRR includes the new proficiency test "Identification of microplastics" in its program and thus complements the already existing identification proficiency tests in the field of plastics.

# Proficiency tests for X-ray fluorescence analysis (XRF)

After our proficiency test "Elemental determination in metal by X-ray fluorescence analysis (XRF)" has become very popular and customers have requested further XRF proficiency tests, the DRRR is adding two new XRF proficiency tests to its program this year: "Elemental determination in plastics by X-ray fluorescence analysis (XRF)" and "Elemental determination in textiles by X-ray fluorescence analysis (XRF)". This enables laboratories working with XRF to verify their performance in the analysis of textiles and plastics.

#### Lead and cadmium in jewelry

The DRRR is offering a new proficiency test for jewelry this year. Fashion jewelry will be digested and extracted and the content of lead and cadmium will be determined. Cheap fashion jewelry is more likely to have lead and cadmium contamination. This can cause damage to health and especially children should not wear such jewelry. According to EU regulations 494/2011 and 836/2012, costume jewelry containing 0,01% by weight of cadmium and 0,05% by weight of lead is banned in the EU.

## Returning of ten result sheets

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds for free.

Please note, that the free of charge service is only valid for returning result sheets by ODIN.

- Check different methods
- · Check different lab technicians
- Check different testing equipment

## **ODIN - proficiency testing online**

# Simply brilliant, your proficiency testing with ODIN (Online Data Information Network).

- Fast and easy online registration / online announcement in our online catalogue
- Direct management and booking of the proficiency testing
- Overview about the registered proficiency testing schemes
- Fast and secure submission of your results via ODIN
- Online access to individual customers reports and certificates
- Supervisor rights available to overview all PTs of a multi-site company
- Saving of costs through booking and submission of your results via ODIN

# Secure payment with IRIS (Internet Remuneration Information Service).

- · Easy and safe payment by credit card
- Overview about all invoices
- · Fast and secure online access

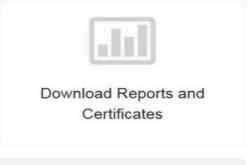
You can also pay your invoice via banktransfer or bank check.



Proficiency testing catalog



> Booked proficiency testings



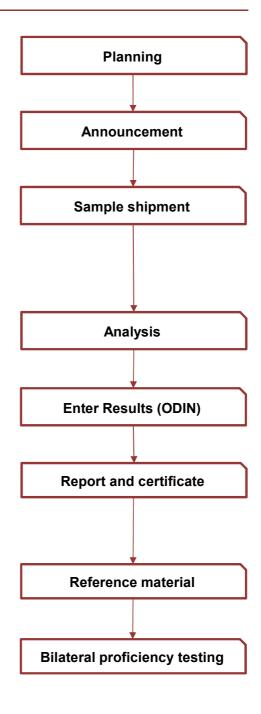
> Booked proficiency testings

## **Proficiency testing organisation**

- A precise planning and organisation of each proficiency testing round
- 2 weeks before we will dispatch the samples you will get an announcement with the proficiency testing details
- According to our requirements, you will receive suitable sample material for the respective proficiency testing scheme.

We reserve the right to have an external subcontractor carry out the sample purchase and any necessary testing.

- After receiving the samples you will have a period of 4 weeks for analysing
- Mail back the results via internet by using our result sheets in an Excel file or fill out our result sheets online in ODIN
- At the latest 3 weeks after the deadline you will get the report (optional by login in ODIN, as hardcopy by regular mail or as pdf-file by e-mail) incl. participation certificate with overview of your lab performance
- After the proficiency testing we can offer you reference materials
- Possibility to perform a bilateral proficiency testing (bPT)



## Benefits of proficiency testing

#### Why take part in proficiency testing?

- Participation in proficiency testing schemes is required by international standards or national facilities, organizations and customers
- Participants can compare, assure and improve their own performance and quality against other laboratories worldwide
- Laboratories can recognize how well they have been completed with the applied method compared to the other laboratories
- · Saving on the costs of testing
- Unquestionable lab performance towards customers, authorities and certification authorities
- Saving on the costs of lab development and maintenance
- Saving on the costs of lab development and maintenance
- Saving on production costs by avoiding waste of raw material

# Your benefits in DRRR proficiency testing schemes

- Objective and independent impression of your quality and your performance of your routine testing method compared to the other participating laboratories
- Saving the costs, because you have the opportunity to analzye more samples and more parameters in one proficiency testing
- External demonstration of your performance with the results of the proficiency testing
- Build up of your own external quality assurance system with our statistical tools (contains statistical control charts, MS-Excel evaluation files and reference materials). With these tools incorporated your external quality assurance rays unmatched confidence
- Detailed planning and organization of your proficiency testing and an easier, faster and better communication with us



Image source: iStock.com/3dts

## Statistical methods

### We work according to:

- ISO Guide 31 / 35
- DIN EN ISO 17034
- DIN EN ISO/IEC 17020 / 17025 / 17043
- ISO 13528

Homogenous and stable sample material

#### Laboratory performance:

by calculation of the following paramters:

- z-score
- · z'-score
- CRD-Wert

Calculation of precision data acc. to ISO 5725-2 in many proficiency testing schemes

#### Statistical models:

Depending on the type of the distribution of the data, different statistic models are used:

- Conventional statistics (all values)
- · Conventional statistics (no outliers)
- Robust statistics (Hampel estimator, Q-method)
- Robust statistics (Median, MAD/nIQR)
- Expert laboratory (expert decision)

Selection of statistical method with the chi²-fit test

Method-specific evaluation according to the reference method (if available)

Additional extended method evaluation (in case data are available)



## Z'-score > 2: What to do?

# You are not satisfied with your laboratory performance: What can you do?

Due to your showed laboratory performance you have been asked by the accreditation body, the monitoring authority or your customer to initiate measures to improve your laboratory performance.

These measures are often connected with considerable efforts in the laboratory and you only have a short time frame. In many cases the proof of a successful measure processing, by participation in a new proficiency testing round, is only possible in the following year. Until now it does not exist a possibility for a spontaneous performance review to equalize a previous unsatisfactory proficiency testing result.

# New: The bilateral proficiency testing (bPT)!

You can book and perform individually and flexibly the bilateral proficiency testing during a determined time period.

You receive a proficiency testing sample for analyzing. You submit the results of the testing. After that you will get your proof of performance as a z'-score calculation in the form of a certificate within 1 - 2 weeks.

The performance evaluation refers to the previous regular proficiency testing, so that you can connect the bPT to the regular proficiency testing round. The used sample material is derived from a previous proficiency testing round and provides the possibility of a comparable performance evaluation with the regular proficiency testing.

#### Your terms and conditions:

Participation in a bPT is open to all laboratories. Prior participation in our regular proficiency tests is not necessary.

The report of this proficiency testing is not older than ten weeks. You register within these ten weeks for the bPT and the performance is confirmed by the DRRR. The testing period is dependent on the technical factors (parameter, matrix etc.) and will be agreed individually\*. When this time is over after the sample shipment and you do not have sent us your results in this time, we can not evaluate your results and issue a certificate for you.

(\* normally not longer than 1 - 2 weeks)
The bPT is not in the scope of accreditation of
the DRRR. The realization of the bPT depends
on the availability of the material.

### Costs bPT

The costs are identical to the costs of the respective proficiency test from our standard program (see ODIN) plus shipping costs.

Alternative you can also order reference material.

# **Proficiency testing**

#### **Features**

The inspectors of the DRRR-team are represent in different national and international committees and working groups. Thus we ensure that the DRRR quality assurance systems are available for new and up-to-date questions in all cases, if the laboratories start to establish the routine method. Due to the intensive professional exchange in the committees, it is ensured that the proficiency testing design is conformed to the new developments and the laboratories have the highest possible benefits in a participation in the proficiency testing.

national and international committees and working groups

#### Testing with matrix reference

Whenever possible, real matrices e.g. films, textiles, cardboard and cosmetics are used. This ensures that our proficiency testing schemes have an actual matrix reference and the sample preparation is part of the proficiency testing.

Matrix reference

### Statistical evaluation

Take advantage of our statistical evaluation system. The evaluation of the proficiency testing is based on the highest scientific and statistical level. Therefore the participating laboratories have a very precise feedback on their actual performance.

## **Evaluation**

#### **Laboratory Measurement**

By using our market-leading statistical evaluation, additional information such as laboratory uncertainty and various scattering of each laboraotires can be presented.

Market-leading statistical evaluation

# chemical-physical proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 28 of this catalogue.

## films

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010073	overall migration one sided contact EN 1186-5; EN 1186-4	overall migration in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	Oct-23	Login or register
2010304	overall migration total immersion EN 1186-2; EN 1186-3	overall migration in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	Nov-23	
2010570	overall migration by article filling EN 1186-9	overall migration in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%	Jul-23	
2010572	overall migration fatty foodstuffs ("substitute	overall migration in food simulating matrix:	Mar-23	
2010372	tests")	ISO-octane, ethanol 95%	Mar-24	
2010574	overall migration at high temperatures	overall migration in food simulating matrix:	Mar-23	
2010374	EN 1186-13	olive oil	Mar-24	
0040000	overall Migration from plastic	overall migration by using Tenax (MPPO)	Jan-23	
2010622	using MPPO as a simulant EN 1186-13	Jan-24		
2010311	overall migration (pouch) EN 1186-7, EN 1186-6	overall migration in simulants: ethanol 10%, 20%, 50%, acetic acid 3% and vegetable oil	Sep-23	
2011003	overall migration (fatty test food) (substitute test, one- sided contact)	Food simulants: ISO octane, 95% ethanol	Oct-23	
2010075	specific migration (caprolactam) CEN/TS 13130-16	specific migration of caprolactam in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	Dec-23	
2010306	specific migration (1-octen) EN 13130-26	specific migration of 1-octen in food simulating matrix: ethanol 50%, 95% ,vegetable oil	May-23	
2010308	specific migration (acrylonitrile) EN 13130-3	specific migration of acrylonitrile in food simulating matrix: ethanol 10%, acetic acid 3%, distilled water, olive oil	Aug-23	
2010310	specific migration (terephthalic acid) EN 13130-2	specific migration of terephthalic acid in food simulating matrix: Ethanol 10%; 50%, acetic acid 3%, distilled water, vegetable oil	Aug-23	
2010628	specific migration (melamine)	specific migration of melamin in food simulating matrix: ethanol 10%, acetic acid 3%, distilled water, vegetable oil	Aug-23	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

# chemical-physical proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 28 of this catalogue.

## films

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010630	specific migration (vinyl acetate)	specific migration of vinyl acetate in food simulating matrix:	Mar-23	Login or register
2010030	CEN/TS 13130-9	ethanol 10%, acetic acid 3%, distilled water, olive oil	Mar-24	
2010251	specific migration (acrylonitrile trimers)	acrylonitrile trimers	Aug-23	
2010401	specific migration (primary aromatic amines) 1	CAS 95-53-4 (o-toluidine), CAS 92-87-5 (benzidine), CAS 62-53-3 (aniline) and CAS 91-94-1 (3,3'-dichlorobenzidine) in simulant distilled water, 3% acetic acid, CAS 101-77-9 (4,4'-Methylenedianiline)	May-23	
2010403	specific migration (primary aromatic amines) 2	CAS 90-04-0 (2-methoxyaniline), CAS 106- 47-8 (4-chloroaniline), CAS 91-59-8 (2- napthylamine) and CAS 119-93-7 (3,3'- dimethylbenzidine) in simulant 10% ethanol and 15% ethanol	May-23	
2010464	specific migration metals part	specific migration of antimony, arsenic, cadmium in simulant acetic acid 3%, water	Okt. 23	
2010466	specific migration metals part 2	specific migration of total chromium, lead, iron in simulant acetic acid 3%, water	Okt. 23	
2010115	identification of film material: mono-layer plastic film	qualitative identification of mono films	Sep-23	
2010167	identification of different PA	e.g. PA6, PA6.6, PA11, PA12	Mar-23	
	types	<b></b>	Mar-24	
2010210	identification of plastic granules	qualitative determination of plastic granules	Mar-23	
	granues	granuss	Mar-24	
2010312	identification of film material: multi-layer plastic films	qualitative identification of multi-layer films	Mar-23	
	multi-layer plastic mins		Mar-24	
2010963	Identification of microplastic	qualitative determination of microplastics in water	Mar-23	
		III water	Mar-24	
2010965	Elemental determination in plastics by X-ray fluorescence analysis (XRF)	Determination of various elements, e.g. nickel, copper, zinc, lead	Sep-23	
2010220	testing of ethylene glycol in food simulating matrix EN 13130-7	ethylene glycol in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	Jun-23	
2010222	testing of di-ethylene glycol in food simulating matrix EN 13130-7	di-ethylene glycol in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	Jun-23	
2010578	testing of Bisphenol A in food simulating matrix	testing of Bisphenol A in food simulating matrix: distilled water, acetic acid 3%, ethanol 10%	Sep-23	

# chemical-physical proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 28 of this catalogue.

## films

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010580	testing of formaldehyde in food simulating matrix CEN /TS 13130-23	testing of formaldehyde in food simulating matrix: distilled water, acetic acid 3%, ethanol 10%, vegetable oil testing of acrylamide in food simulating	Aug-23	Login or register
2010632	testing of acrylamide in food simulating matrix CEN/TS 13130-10	testing of acrylamide in food simulating matrix: ethanol 10%, acetic acid 3%, distilled water, olive oil	Jun-23	
2011101	testing of ethylenediamine in food simulating matrix	ethanol 10 %, distilled water, acetid acid 3 %, vegetable oil	Oct-23	
2011102	testing of hexamethylenediamine in food simulating matrix	ethanol 10 %, distilled water, acetid acid 3 %, vegetable oil	Oct-23	
2010322	determination of overall migrat on synthetic samples	determination of overall migrat in simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water	Jul-23	
2010582	determination of the phthalate content in consumer goods	DBP, BBP, DEHP, DNOP, DINP, DIDP, DEP, DMP	Oct-23	
2010584	determination of vinylchloride monomer in synthetic sample	IVINVI CNIATIAE MANAMET	Oct-23	
2010634	acetaldehyde in mineral water	acetaldehyde	Jul-23	
2010576	determination of overall migration potential by rapid extraction	overall migration in food simulating matrix: ISO-octane, ethanol 95%	Apr-23	
2010636	determination of bisphenol A content in plastics	bisphenol A monomer	Apr-23	
2010638	determination of 1,3 butadiene content in plastics	1,3 butadiene monomer	May-23	
2010307	styrol oligomers in synthetic samples	CAS 1081-75-0 (1,3-Diphenylpropane), CAS 16606-47-6 (2,4-Diphenyl-1-butene), CAS 20071-09-4 (trans-1,2-Diphenylcyclobutane), CAS 18964-53-9 (2,4,6-Triphenyl-1-hexene) and CAS 26681-79-8 (1-Phenyl-4-(1-phenylethyl)-1,2,3,4-tetrahydronaphthalene)	Dec-23	
2010405	determination of the PAH content in plastics	CAS 91-20-3 (naphthalene), CAS 120-12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(j)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	May-23	
2011015	Volatile fractions in silicone	gravimetric determination of the volatile fractions	Jun-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<a href="https://www.DRRR.de">www.DRRR.de</a>). You can also use the registration forms on page 28 of this catalogue.

# paper / board

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010318	mineral oil in cardboard	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35	Nov-23	Login or register
2010180	mineral oil in low-fat and starch-rich foodstuff	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	May-23	
2010590	mineral oil in cocoa butter and chocolate	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	Jul-23	
2010245	mineral oil in cheese and milk powder	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	Jul-23	
2010320	mineral oil in edible fat and edible oil	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C36-C50	Aug-23	
2010586	migration of mineral oil from	Migration of mineral oil in food simulating	Mar-23	
2010300	cardboard	matrix: Tenax	Mar-24	
2010935	Mineral oil in jute bags	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	Aug-23	
2010620	migration from paper and board using MPPO as a simulant EN 14338	overall migration by using Tenax (MPPO) as a simulant	Nov-23	
2010640	pH value in aqueous extract (cold and hot)	pH value	Nov-23	
2010642	formaldehyde in aqueous extract EN 1541	formaldehyde (cold water extract)	Jun-23	
2010644	determination of glyoxal content DIN 54603	glyoxal (cold water extract)	May-23	
2010646	colour fastness of dyed paper and board (EN 646)	testing with distilled water, acetic acid 3%, olive oil, alkali salt solution	May-23	
2010648	colour fastness of fluorescent whitened paper and board (EN 648)	testing with distilled water, acetic acid 3%, olive oil, alkali salt solution	May-23	
2010442	overall migration of paper and cardboard	overall migration in simulant ethanol 95%	Apr-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 28 of this catalogue.

# paper / board

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010448	specific migration (Benzophenone)	specific migration of benzophenone in simulant ethanol 95%	Apr-23	Login or register
2010711	gravimetric determination of constituents of paper - cardboard	dry content, residue on ignition, ash	May-23	
2010450	determination of the DIPN content in paper - cardboard (EN 14719)	DIPN (Diisopropylnaphthalin)	May-23	
2010452	determination of 1,3-dichloro- 2-propanol and 3- monochloro-1,2-propanediol	1,3-dichloro-2-propanol, 3-monochloro-1,2- propanediol in water extract	Jun-23	
2010454	PCB in paper - cardboard	PCB 52, PCB 101, PCB 138	Jun-23	
2010456	cadmium and lead in aqueous extract (EN 12498)	cadmium, lead	Jul-23	
2010458	determination of acid soluble manganese (ISO 1830)	manganese	Jul-23	
2010460	bisphenol S in thermal paper	Bisphenol S	Aug-23	
2011011	Determination of total chlorine and organically bound chlorine (ISO 11480)	total chlorine, organically bound chlorine	Jul-23	
2011023	Kappa number of pulps (ISO 302)	Kappa number	Jun-23	
2011024	ISO 2528	Sheet materials - Water vapour transmission rate	Oct-23	
2011025	ISO 535	Paper and board - Water absorptiveness (Cobb)	Oct-23	
2011026	ISO 5636-3	Paper and board - Air permeance (Bendtsen)	Oct-23	
2011027	ISO 5636-5	Paper and board - Air permeance (Gurley)	Oct-23	
2011028	ISO 536	Paper and board - Grammage	Oct-23	
2011029	ISO 534	Paper and board - Thickness, density, specific volume	Oct-23	
2011030	ISO 12625-3	Tissue products - Thickness	Oct-23	
2011031	ISO 12625-8	Tissue products - Water-absorption capacity	Oct-23	
2011032	ISO 12625-6	Tissue products - Grammage	Oct-23	
2011099	Aluminium in aqueous extract	aluminium	Aug-23	

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## textiles

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010324	extractable heavy metals in textiles	cadmium, lead, nickel, mercury, chromium	Jul-23	Login or register
2010185	formaldehyde	free and hydrolised formaldehyde	May-23	
2010326	flameretardants	tributyl phosphate (CAS No 126-73-8), o- triskresyl phosphate (CAS No 78-30-8), tris(2-chloroethyl)-phosphate (CAS No 115- 96-8), tris(2-chloro-1-methylethyl)- phosphate (CAS No 13674-84-5)	Dec-23	
2010328	azo dyes qual. and quant.	Qualitative and quantitative determination of aromatic amines derived from azo dyes acc. EN 14362-1. The quantitative determination is not in the Scope of accreditation.	Nov-23	
2010224	aniline in textiles	CAS 62-53-3 (aniline)	May-23	
2010225	2,4-xylidine and 2,6-xylidine in textiles	CAS 95-68-1 (2,4-xylidine), CAS 87-62-7 (2,6- xylidine)	May-23	
2010226	alkylphenols and alkylphenol ethoxylates in textiles	CAS 68412-54-5 (nonylphenol ethoxylate), CAS 9002-93-1 (octylphenol ethoxylate), CAS 84852–15–3 4-(nonylphenol isomer mixture), CAS 140–66–9 (4-tert- octylphenol)	Nov-23	
2010227	chlorophenols in textiles	Tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol- isomers and CAS 87-86-5 (pentachlorophenol)	Nov-23	
2010173	organotin compounds in textiles	CAS 1118-46-3 (monobutyltin trichloride), CAS 3091-25-6 (trichlorooctylstannane), CAS 683-18-1 (dibutyltin dichloride), CAS 3542-36-7 (dioctyltin dichloride), CAS 1461- 22-9 (tributyltin chloride), CAS 639-58-7 (triphenyltin chloride), CAS 3091-32-5 (tricyclohexyltin chloride), CAS 1461-25-2 (tetra-n-butyltin)	Oct-23	
2010175	perfluorinated compounds in textiles	CAS 1763-23-1 (perfluorooctane sulfonic acid)	Oct-23	
2010177	pesticides in textiles	Chlorinated and phosphorus containing pesticides	Sep-23	
2010179	determination of the total metal content in textiles	e.g. tin, cadmium and mercury	Sep-23	

Proficiency Testing for mechanical textile testing can be found in the catalogue "material testing" or the online catalogue: e. g. fabric properties, functional properties, colour fastness, determination of fibre blends, laminated fabrics, personal protective equipment (PPE)

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 28 of this catalogue.

#### textiles

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010181	phthalates in textiles	CAS 28553-12-0 (DINP), CAS 117-81-7 (DEHP), CAS 117-84-0 (DNOP), CAS 26761- 40-0 (DIDP), CAS 85-68-7 (BBP), CAS 84-74- 2 (DBP), CAS 84-69-5 (DIBP), CAS 131-18-0 (DPP), CAS 71888-89-6 (DIHP), CAS 117-82- 8 (DMEP)	Aug-23	<u>Login or register</u>
2010527	PAH in textiles	CAS 91-20-3 (naphthalene), CAS 120-12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthen), CAS 207-08-9 (benzo(k)fluoranthen), CAS 205-82-3 (benzo(j)fluoranthen), CAS 50-70-3 (benzo(e)pyren), CAS 50-70-3 (benzo(a)pyren), CAS 53-70-3 (dibenz(ah)anthracene) (minimum 5 of the parameters quantitative)  A PAH concentration in the samples of approximately 0,1-10 mg/kg per PAH is to be expected.	Aug-23	
2010430	determination of lead release with saliva simulant solution in textiles (EN 16711-3)	lead	May-23	
2010967	Elemental determination in textiles by X-ray fluorescence analysis (XRF)	Determination of various elements, e.g. nickel, copper, zinc, lead	Sep-23	
2011013	extractable dyestuffs in textiles (ISO 16373-2)	Detection of at least 3 extractable dyestuffs	Jun-23	
2011017	Chlorobenzenes and chlorotoluenes in textiles (EN 17137)	At least 4 different substances quantitatively	May-23	

Proficiency Testing for mechanical textile testing can be found in the catalogue "material testing" or the online catalogue: e. g. fabric properties, functional properties, colour fastness, determination of fibre blends, laminated fabrics, personal protective equipment (PPE)

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 28 of this catalogue.

## tattoo ink

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010338	preservatives in tattoo ink	benzisothiazolinone (BIT)	Dec-23	Login or register
2010340	aromatic amins in tattoo ink	aniline, o-Anisidine, o-toluidine, 5-nitro-o- toluidine	Dec-23	
2010560	elements in tattoo ink	tin, zinc, nickel, strontium, antimony, barium, cadmium, cobalt, lead (minimum 4 of the parameters quantitative)	Apr-23	

jewellery

Art. No.	proficiency testing type [A]	requested parameters	period	
2010568	jewellery (acc. to EN 1811)	testing for nickel release	Jul-23	
2010969	Lead and cadmium in jewelry	Lead, cadmium	Oct-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 28 of this catalogue.

#### cosmetics

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010330	soap	AOX, EOX	Sep-23	Login or register
2010206	care products	methylparaben, ethylparaben, propylparaben, n-butylparaben, phenoxyethanol, benzoic acid, sorbic acid, methylisothiazolinone, isobutylparaben	Oct-23	
3010015	shampoo, lotion	fat, density, pH-value, dry residue, water content, urea	Aug-23	
2010201	cream, lotion	dexpanthenol, tocopherolacetat, retinolpalmitate	Sep-23	
3010017	dental care	fluoride	Oct-23	
2010332	metals in cosmetics	aluminium, copper, zinc	Apr-23	
2010700	heavy metals in cosmetics	lead, arsenic, antimony, nickel, cobalt, zinc, cadmium	Oct-23	
2010334	quant. determination of UV filters	EHS, BMDM, EHT, PBSA, OC, titanium dioxide	Apr-23	
2010336	PAH in decorative cosmetics	naphthalene, anthracene, benzo(a)anthracene, chrysene, benzo(b)fluoranthen, benzo(k)fluoranthen, benzo(j)fluoranthen, benzo(e)pyren, benzo(a)pyren, dibenz(ah)anthracene (minimum 3 of the parameters quantitative) A PAH concentration in the samples of approximately 0,5-50 mg/kg per PAH is to be expected.	Jul-23	
2010556	tensides in cosmetics	Sodium Laureth Sulfate, Cocamidopropyl	Feb-23	
		betaine (CAPB), Coco-glucoside	Feb-24	
2010558	mineral oil hydrocarbons in care products	MOSH C10 - C50, MOAH C10 - C50	Mar-23 Mar-24	
			Mar-23	
2010650	anti dandruff substances	pirocton-olamine, zinc pyrithione	Mar-24	

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#### cosmetics

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010652	solvents	ethanol, isopropyl alcohol, acetone, glycol	Aug-23	Login or register
2010329	perfume, body spray	flash point	Aug-23	
2010397	Self-tanner	dihydroxyacetone, formaldehyde	Apr-23	
2010399	determination of sunscreen UVA photoprotection in vitro (ISO 24443)	UVA photoprotection	Apr-23	
2011022	rheology of cosmetics	viscosity	Jun-23	
2011100	Determination of 3-lodoprop- 2-yn-1-yl butylcarbamate (IPBC) in cosmetic products	3-lodoprop-2-yn-1-yl butylcarbamate (IPBC)	Sep-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 28 of this catalogue.

printing inks

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010314	migration of printing ink constituents quant. determination of monomers and initiators -round 1-	CAS 94108-97-1: Di(tri-methylolpropan)tetraacrylat (Di-TMPTA), CAS 57472-68-1: Dipropylene glycol diacrylate (DPGDA), CAS 119313-12-1: 1-Butanone,2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)-CAS 84434-11-7: 2,4,6-trimethylbenzoylphenyl phosphinate food simulating matrices: 50% ethanol,	Jul-23	<u>Login or register</u>
2010316	migration of printing ink constituents quant. determination of monomers	CAS 42978-66-5: Tri(propylene glycol)diacrylate (TPGDA), CAS 15625-89-5: Tri(methylolpropan)triacrylate (TMPTA), CAS 272460-97-6: 1-Propanone,1-[4-[(4- benzoylphenyl)thio]phenyl]-2-methyl-2-[(4- methylphenyl)sulfonyl]-,	Mar-23	
	and initiators -round 2-	CAS 162881-26-7: Bis(2,4,6-trimethylbenzoyl)- phenylphosphineoxide  food simulating matrices: 50% ethanol, 95% ethanol	Mar-24	
2010193	printing ink constituents in synthetic samples - monomers -round 3-	CAS 94108-97-1: Di(tri-methylolpropan)tetraacrylat (Di-TMPTA), CAS 57472-68-1: Dipropylene glycol diacrylate (DPGDA), CAS 42978-66-5: Tri(propylene glycol)diacrylate (TPGDA), CAS 15625-89-5: Tri(methylolpropan)triacrylate (TMPTA)	Sep-23	
3010019	printing ink constituents in synthetic samples - initiators -round 4-	CAS 119344-86-4: 2-dimethylamino-2-(4-methyl-benzyl)-1-(4-morpholin-4-yl-phenyl)-butan-1-one CAS 84434-11-7: 2,4,6-trimethylbenzoylphenyl phosphinate CAS 272460-97-6: 1-Propanone,1-[4-[(4-benzoylphenyl)thio]phenyl]-2-methyl-2-[(4-methylphenyl)sulfonyl]-, CAS 162881-26-7: Bis(2,4,6-trimethylbenzoyl)-phenylphosphineoxide	Nov-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<a href="https://www.DRRR.de">www.DRRR.de</a>). You can also use the registration forms on page 28 of this catalogue.

## toys

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010562	elements in toys; scrapped- off materials	tin, zinc, nickel, strontium, antimony, barium, cadmium, cobalt, lead (minimum 4 of the parameters quantitative)	May-23	Login or register
2010564	colourfastness of articles for common use (acc. to DIN 53160-1)	Test with artificial saliva	Jun-23	
2010566	colourfastness of articles for common use (acc. to DIN 53160-2)	Test with artificial sweat	Jun-23	
2010626	toys on water basis	methylisothiazolinone (MI), benzisothiazolinone (BIT)	Apr-23	
2010253	finger color (EN 71-12)	N-Nitrosodiethanolamine (NDELA)	Apr-23	
2010255	toy material extract: dyes (EN 71-11)	dyes	Jul-23	
2010257	aqueous migrate: phenol (EN 71-11)	phenol	Aug-23	
2010259	aqueous migrate: bisphenol A (EN 71-11)	bisphenol A	Jul-23	
2010262	aqueous migrate: acrylamide (EN 71-11)	acrylamide	Aug-23	
2010299	wobble mass, slime (EN 71-3)	boron	Sep-23	
2010301	formaldehyde release (EN 717-3) (use of a model matrix)	formaldehyde (flask method)	Oct-23	
2010309	primary aromatic amines in finger paint and colorants	CAS 95-53-4 (o-Toluidine), CAS 90-04-0 (2-Methoxyaniline), CAS 106-47-8 (4-Chloraniline), CAS 91-59-8 (2-Napthylamine), CAS 92-87-5 (Benzidine), CAS 62-53-3 (Aniline), CAS 119-93-7 (3,3'-Dimethylbenzidine), CAS 91-94-1 (3,3'-Dichlorbenzidine) and CAS 119-90-4 (3,3'-Dimethoxybenzidine). The samples contain at least 5 aromatic amines.	Dec-23	
2010440	preservative in finger pain (EN 71-7)	sorbic acid, benzoic acid, 2- phenoxyethanol, PHB ester	Aug-23	
2011009	Lead and cadmium in children's toys (CPSC-CH-E1004-11, CPSC-CH-E1002-	Lead, cadmium	Jul-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 28 of this catalogue.

## cleaning agent

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010914	organic acids	citric acid, formic acid, amidosulfonic acid	Oct-23	Login or register
2010916	oxidizing agent	sodium hypochlorite, hydrogen peroxide, percarbonate	Oct-23	
2010918	reducing agent	sodium dithionite, sulphurous acid, oxalic acid	Oct-23	
2010920	acid / alkali cleaning agent	pH value, acid reserve, alkali reserve	Apr-23	
2010922	alcohol-based cleaner	ethanol	Apr-23	
2010432	hygienic rinsing agent - disinfectant	DDAC (didecyldimethylammonium chloride)	Jul-23	
2010436	denaturant	Bitrex (denatonium benzoate)	Jul-23	
2010438	disinfectant	formaldehyde, glutaraldehyde, triclosan	Jul-23	

#### metals

Art. No.	proficiency testing type [A]	requested parameters	period	
2010171	determination of elements in metal by X-ray fluorescence analysis (XRF)	determination of various elements, e.g. nickel, copper, zinc, lead	Jul-23	
2010416	chemical analysis of refractory products by X-ray fluorescence (XRF) - Fused cast-bead method (ISO 12677)	Determination of various elements, e.g. nickel, copper, zinc, lead	Jul-23	

Proficiency Testing for coating thickness in metal can be found in the catalogue "material testing" or the online catalogue.

# e-cigarettes

Art. No.	proficiency testing type [A]	requested parameters	period	
2010264	liquids from e-cigarettes	glycerin, propylene glycol, nicotine	Sep-22	
2010420	liquid from CBD cigarettes	CBD, terpenes	Sep-22	

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#### leather

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010186	identification of leather by microscopy	identification of leather (imitation leather and leather of various animal species)	May-23	Login or register
2010189	determination of the total metal content in leather (ISO 17072-2)	e.g. chromium, lead and cadmium	May-23	
2010233	determination of water soluble substances in leather	water-soluble substances, water-soluble inorganic substances	May-23	
2010192	determination of volatile substances in leather	Mass of volatile substances	Jun-23	
2010194	determination of preservatives in leather	CAS 21564-17-0 (TCMTB), CAS 59-50-7 (CMK), CAS 90-43-7 (OPP), CAS 26530-20-1 (OIT)	Jun-23	
2010196	Leather – formaldehyde content ISO 17226-1	CAS 50-00-0 (formaldehyde)	Jun-23	
2010198	determination of aromatic amines from azo dyes in leather	qualitative and quantitative detection of azo dyes over aromatic amines according to ISO 17234-1	Jul-23	
2010200	determination of 4- aminoazobenzene in leather	CAS 60-09-3 (4-aminoazobenzene) according to ISO 17234-2	Jul-23	
2010202	chlorophenols in leather	Tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol- isomers and CAS 87-86-5 (pentachlorophenol)	Jul-23	
2010265	organotin compounds in leather	CAS 1118-46-3 (monobutyltin trichloride), CAS 3091-25-6 (trichlorooctylstannane), CAS 683-18-1 (dibutyltin dichloride), CAS 3542-36-7 (dioctyltin dichloride), CAS 1461- 22-9 (tributyltin chloride), CAS 639-58-7 (triphenyltin chloride), CAS 3091-32-5 (tricyclohexyltin chloride), CAS 1461-25-2 (tetra-n-butyltin)	Aug-23	
2010211	alkylphenols and alkylphenol ethoxylates in leather	CAS 68412-54-5 (nonylphenol ethoxylate), CAS 9002-93-1 (octylphenol ethoxylate), CAS 84852-15-3 4-(nonylphenol isomer mixture), CAS 140-66-9 (4-tert- octylphenol)	Aug-23	
2010305	naphthalene in leather	CAS 91-20-3 (naphthalene)	Jun-23	
2010418	determination of extractable metals in leather (ISO 17072-1)	e.g. chrome, lead and cadmium	May-23	
2011005	Dimethyl fumarate (DMFU) in footwear materials (ISO 16186)	Dimethyl fumarate (DMFU)	Aug-23	
2011007	Dimethylformamide (DMF) in footwear materials (ISO 16189)	Dimethylformamide (DMF)	Aug-23	

Proficiency Testing for mechanical leather testing can be found in the catalogue "material testing" or the online catalogue.

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 28 of this catalogue.

## kitchen utensils and dishes

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010407	release of metals from enamel (ISO 4531)	Release of various metals in the simulant 3% acetic acid	Oct-23	Login or register
2010411	specific migration of lead and cadmium from ceramics (EN 1388-1)	Lead and cadmium in the simulant acetic acid (40 ml/l)	Oct-23	
2010414	specific migration of cobalt from ceramics	Cobalt in the simulants 4% acetic acid, 0,5% citric acid and 10% acetic acid	Oct-23	

## adhesive

Art. No.	proficiency testing type [A]	requested parameters	period	
2010422	preservatives in adhesive	Methylisothiazolinone (MIT), Chloromethylisothiazolinone (CIT), Benzisothiazolinone (BIT), Octylisothiazolinone (OIT), Phenoxyethanol	Jun. 23	
2010424	formaldehyde in adhesive	Formaldehyde	Jun. 23	
2010426	VOC in adhesive	VOC in the value range 0,01-0,1% (100-1000 mg/kg), e.g. 1-Butanol, Acetone, Benzene, Toluene. Styrene	Jun. 23	
2010428	solvents in adhesive	e.g. ethanol, acetone, benzene, toluene, methyl acetate (The test should be carried out according to EN ISO 11890-2 or a comparable method. Solvent quantities of more than 0,01% by mass are to be expected.)	Jun. 23	
2010925	Migration of primary aromatic amines in adhesive	CAS 823-40-5 (2,6-Diamino-toluol), CAS 95- 80-7 (2,4-Diamino-toluol), CAS 101-77-9 (4,4-Diamino-diphenylmethan), CAS 1208- 52-2 (2,4-Diamino-diphenylmethan), CAS 6582-52-1 (2,2-Diamino-diphenylmethan) in the simulant 3% acetic acid	Jun. 23	

## rubber

Art. No.	proficiency testing type [A]	requested parameters	period	
2010853	determination of the content of PAH in rubber	CAS 91-20-3 (naphthalene), CAS 120-12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(j)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	Sep-23	

# organoleptic proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 28 of this catalogue.

## films

Art. No.	proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
For the follo	owing proficiency testing sc	s online:	Login or register	
3010011	sensory of packaging acc. to DIN 10955	examination for panels - minimum number of participants: 6 assessors! organoleptic analysis - sample preparation, intensity estimation, descriptive testing	Oct-23	

# paper / board

Art. No.	proficiency testing type [A]	requested parameters	period
For the follo	For the following proficiency testing schemes you can not enter your results online:		
3010024	sensory of board and paper acc. to EN 1230	examination for panels - minimum number of participants: 6 assessors! organoleptic analysis - sample preparation, intensity estimation, descriptive testing	Oct-23
3010022	threshold value examination off flavour	organoleptic analysis - threshold value examination for packaging off-flavour	Aug-23

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## registration form proficiency testing



Article No. / proficiency testing type	period	result release and report online (ODIN)	result release by e- mail / fax; report by e- mail	additional sample sets / assessor (organoleptic)
			•	•

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds are free of charge. As a participant, you benefit from our international recognized proficiency testing schemes. By submitting up to ten result sheets you are now enabled to run international comparisions to check different methods and different lab technicians with one proficiency testing round. Your benefit: Participating in DRRRproficiency testing services save costs for your quality assurance! If you need additional sample sets, you have the opportunity to order it according to our latest product catalogue.

Please note, that the free of charge service is only valid for returning result sheets by ODIN. If you send us your results by mail, fax or postal delivery, the additional result sheet will be charged according the latest product catalogue as a sample set equivalent.

In very rare individual cases an accredited proficiency testing round will not be carried out within the scope of accreditation due to technical or organizational reasons. In these rare cases the DRRR will inform the participants before the start of the proficiency testing round, thus before the sample shipment. An immediately free cancellation for the participants is possible until the date of the sample shipment.

Your registration is an one-time order. It is only valid for one year. Cancelation fees apply when cancelling a registration. If you want to have a permanent-registration please tick the box on the right side.

Please send registration to: fax-no. +49 (0)8 31/960 878-99 e-mail: info@DRRR.de online via www.odin.drrr.de

- this registration is permanent-registration and valid until my cancelation
- An offer with the total costs is needed
- A Purchase order from the purchasing department will follow

	•	1 3 1	
DRRR-customer number			
company			
company (additional line)			
contact person			
street			
post-code /city			
country (if not Germany)			
fon			
fax			
e-mail			
e-mail for invoices			
VAT-ID-No. (if available)			
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With your signature you agree			
with our general terms and conditions.	date	signature	

#### reference material

#### **Importance**

Reference material is a substance or item with one or more defined (known) characteristics and sufficient homogeneity.

Benefit of using certified reference materials

These materials are suitable for the calibration of equipment, for the quality assurance of testing methods or to analyse derivate reference materials. DRRR-Reference materials are essential for the chemical, physical, microbiological and sensory analytics as well as for the quality assurance. Standards for the accreditation of testing and calibration laboratories demand the using of reference materials.

The use of reference materials (RM) and certified reference materials (CRM) is an important procedure to avoid mistakes in the lab routine.

**Characteristics** 

- the reference value is developed by the total number of results of the participants of proficiency testing (consensus value)
- DRRR-Reference materials do always refer to a DRRR-Proficiency testing
- reliable reference values according to advanced statistical evaluation
- independent service without influence of societies organisations and federations

The opportunity to collaborate with the best laboratories for the different requirements assures the high quality of our materials.

Identification

The reference materials listed on the following pages have specific article numbers to identify the materials. To supply our customers with consistently high quality the DRRR-reference materials will be replaced regularly by corresponding materials during the year. Currently available reference materials and its corresponding reference values will be sent on request. We reserve our right to send you always the latest materials.

Description reference material

Profit with our high quality standards for your lab work

Reference materials meet all requirements of the ISO Guides 31 and 35, but it does not exist any accreditation for reference

Availability and order request of reference material

Please use the order from on page 46.

## films

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151001	overall migration of plastic film (one-sided contact)	ethanol 10 %, ethanol 20 %, ethanol 50 %, acetic acid 3 %, distilled water, vegetable oil	-	1 film á app. 40 x 60 cm	100€
1151002	overall migration of plastic film (total immersion)	ethanol 10 %, ethanol 20 %, ethanol 50 %, acetic acid 3 %, distilled water, vegetable oil	-	1 film á app. 40 x 60 cm	100€
1151044	overall migration of plastic film (article filling)	ethanol 10 %, ethanol 20 %, ethanol 50 %, acetic acid 3 %	-	310 ml	100 €
1151045	overall migration of plastic film(fatty foodstuffs) ("substitute tests")	ISO-octane, ethanol 95 %	-	1 film á app. 40 x 60 cm	100€
1151046	overall migration of plastic film at high temperatures	olive oil	-	on request	100€
1151056	overall migration from plastic using MPPO as a simulant	overall migration by using Tenax (MPPO) as a simulant	-	app. 20 x 30 cm	100€
1151116	overall migration (pouch)	ethanol 10%, 20%, 50%, acetic acid 3% and vegetable oil	-	on request	100€
1151167	overall migration (fatty test food) (substitute test, one- sided contact)	Food simulants: ISO octane, 95% ethanol	-	on request	100€
1151003	specific migration of plastic film: caprolactam	ethanol 10 %, ethanol 20 %, ethanol 50 %, acetic acid 3 %, distilled water, vegetable oil	-	1 film á app. 40 x 30 cm	100€
1151004	specific migration of plastic film: therephthalic acid	ethanol 10 %, ethanol 50 %, acetic acid 3 %, distilled water, vegetable oil	-	app. 34 x 15	100 €
1151005	specific migration of plastic film: acrylonitrile	ethanol 10 %, acetic acid 3 %, distilled water, olive oil	-	app. 103 g granulate	100 €
1151054	specific migration of plastic film: 1-Octen	ethanol 50 %, ethanol 95 %, vegetable oil	-	app. 90 g granulate	100€
1151058	specific migration of plastic film: melamine	ethanol 10%, acetic acid 3%, distilled water, vegetable oil	-	4 x 5 g granules	100€
1151059	specific migration of plastic film: vinyl acetate	ethanol 10%, acetic acid 3%, distilled water, olive oil	-	103 g	100€
1151105	specific migration (acrylonitrile trimers)	acrylonitrile trimers	-	on request	100 €
1151130	specific migration (primary aromatic amines) 1	CAS 95-53-4 (o-toluidine), CAS 92-87-5 (benzidine), CAS 62-53-3 (aniline) and CAS 91-94-1 (3,3'-dichlorobenzidine) in simulant distilled water, 3% acetic acid, CAS 101-77-9 (4,4'-Methylenedianiline)	-	on request	100€
1151131	specific migration (primary aromatic amines) 2	CAS 90-04-0 (2-methoxyaniline), CAS 106-47-8 (4-chloroaniline), CAS 91-59-8 (2-napthylamine) and CAS 119-93-7 (3,3'-dimethylbenzidine) in simulant 10% ethanol	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

## films

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151158	specific migration metals part 1	specific migration of antimony, arsenic, cadmium in simulant acetic acid 3%, water	-	on request	100€
1151159	specific migration metals part 2	specific migration of total chromium, lead, iron in simulant acetic acid 3%, water	-	on request	100€
1151006	identification of polymer material (mono-layer plastic film)	qualitative identification (e.g. PE, PP,)	-	set consists of 3 foils á app.10 x 10	100€
1151007	identification of plastic granules	qualitative identification	-	30 ml	100€
1151008	identification of polymer material (multi-layer plastic film)	qualitative identification of single polymer layers in a multi-layer plastic foil (e.g. PE, PP,)	-	set consists of 3 foils á app.20 x 30 cm	100€
1151079	identification of different PA types	e.g. PA6, PA6.6, PA11, PA12	-	арр. 15 д	100€
1151163	Identification of microplastic	qualitative determination of microplastics in water	-	on request	100€
1151164	Elemental determination in plastics by X-ray fluorescence analysis (XRF)	Determination of various elements, e.g. nickel, copper, zinc, lead	-	on request	100€
1151077	testing of: ethylene glycol in food simulant	ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	-	100 ml	100€
1151078	testing of: di-ethylene glycol in food simulant	ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	-	100 ml	100€
1151048	testing of: Bisphenol A in food simulant	distilled water, acetic acid 3 %, ethanol 10 %	-	100 ml	100€
1151049	testing of: formaldehyde in food simulant	distilled water, acetic acid 3 %, ethanol 10 %, vegetable oil	-	100 ml	100€
1151060	testing of: acrylamide	ethanol 10%, acetic acid 3%, distilled water, olive oil	-	100 g	100€
1151047	determination of overall migration potential by rapid extraction	ISO-octane, ethanol 95 %	-	on request	100€
1151009	determination of overall migrat on synthetic samples	ethanol 10 %, ethanol 20 %, ethanol 50 %, acetic acid 3 %, distilled water	-	app. 20 x 30 cm	100€
1151050	determination of the phthalate content in consumer goods	DBP, BBP, DEHP, DNOP, DINP, DIDP, DEP, DMP	-	3 g	339€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

## films

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151051	determination of vinylchloride monomer in synthetic sample	vinyl chloride monomer	-	on request	100€
1151061	acetaldehyde in mineral water	acetaldehyde	-	75 ml	100€
1151062	determination of bisphenol A content in plastics	bisphenol A monomer	-	5 g	100€
1151063	determination of 1,3 butadiene content in plastics	1,3 butadiene monomer	-	4 g	100€
1151114	styrol oligomers in synthetic samples	CAS 1001-75-0 (1,3-Diphenylpropane), CAS 16606-47-6 (2,4-Diphenyl-1- butene), CAS 20071-09-4 (trans-1,2- Diphenylcyclobutane), CAS 18964-53- 9 (2,4,6-Triphenyl-1-hexene) and CAS 26681-79-8 (1-Phenyl-4-(1- phenylethyl)-1,2,3,4- tetrahydronaphthalene)	-	on request	100€
1151132	determination of the PAH content in plastics	CAS 91-20-3 (naphthalene), CAS 120- 12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(j)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	<u>-</u>	on request	100 €
1151173	Volatile fractions in silicone	gravimetric determination of the volatile fractions		on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

# paper / board

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151015	mineral oil in cardboard	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35	-	1 cardboard á app. 30 x 20 cm	100 €
1151016	mineral oil in low-fat and starch-rich foodstuff	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	50 g	100 €
1151053	mineral oil in cocoa butter and chocolate	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	100 g	100€
1151104	mineral oil in cheese and milk powder	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	on request	100€
1151017	mineral oil in edible fat and edible oil	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C36-C50	-	15 g	100€
1151052	migration of mineral oil from cardboard	Migration of mineral oil in food simulating matrix: Tenax	-	1 cardboard á app. 30 x 20	100€
1151161	Mineral oil in jute bags	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	on request	100€
1151055	migration from paper and board using MPPO as a simulant	overall migration by using Tenax (MPPO) as a simulant	-	1 cardboard á app. 30 x 20 cm	100€
1151064	pH value in aqueous extract (cold and hot)	pH value	-	on request	100€
1151065	formaldehyde in aqueous extract	formaldehyde	-	ca. 10 g	100 €
1151066	determination of glyoxal content	glyoxal	-	ca. 10 g	100€
1151067	colour fastness of dyed paper and board	distilled water, acetic acid 3%, olive oil, alkali salt solution	-	1 cardboard á app. 30 x 20	100€
1151068	colour fastness of fluorescent whitened paper and board	distilled water, acetic acid 3%, olive oil, alkali salt solution	-	1 cardboard á app. 30 x 20	100€
1151149	overall migration of paper and cardboard	overall migration in simulant ethanol 95%	-	on request	100€
1151150	specific migration (Benzophenone)	specific migration of benzophenone in simulant ethanol 95%	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

## paper / board

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151151	gravimetric determination of constituents of paper - cardboard	dry content, residue on ignition, ash	-	on request	100€
1151152	determination of the DIPN content in paper - cardboard (EN 14719)	DIPN (Diisopropylnaphthalin)	-	on request	100€
1151153	determination of 1,3- dichloro-2-propanol and 3- monochloro-1,2-propanediol	1,3-dichloro-2-propanol, 3- monochloro-1,2-propanediol in water extract		on request	100€
1151154	PCB in paper - cardboard	PCB 52, PCB 101, PCB 138	-	on request	100€
1151155	cadmium and lead in aqueous extract (EN 12498)	cadmium, lead	-	on request	100€
1151156	determination of acid soluble manganese (ISO 1830)	manganese	-	on request	100€
1151157	bisphenol S in thermal paper	Bisphenol S	-	on request	100€
1151171	Determination of total chlorine and organically bound chlorine (ISO 11480)	total chlorine, organically bound chlorine	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

## textiles

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151018	extractable heavy metals in textiles	cadmium, lead, nickel, mercury, chromium (quantitative)	-	4 g	100€
1151019	free formaldehyde in textiles	free formaldehyde (quantitative)	-	1 g	100€
1151020	flame retardants in textiles	tributyl phosphate (CAS No 126-73-8), o-triskresyl phosphate (CAS No 78- 30-8), tris(2-chloroethyl)-phosphate (CAS No 115-96-8), tris(2-chloro-1- methylethyl)-phosphate (CAS No 13674-84-5)	-	1 g	100€
1151021	azo dyes in textiles	qualitative determination of aromatic amines derived from azo dyes acc. EN 14362-1	-	2 g	100€
1151002	aniline in textiles	CAS 62-53-3 (aniline)	-	on request	100€
1151003	2,4-xylidine and 2,6-xylidine in textiles	CAS 95-68-1 (2,4-xylidine), CAS 87-62- 7 (2,6-xylidine)	-	on request	100€
1151004	alkylphenols and alkylphenol ethoxylates in textiles	CAS 68412-54-5 (nonylphenol ethoxylate), CAS 9002-93-1 (octylphenol ethoxylate), CAS 84852–15–3 4-(nonylphenol isomer	-	on request	100€
1151005	chlorophenols in textiles	Tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol- isomers and CAS 87-86-5 (pentachlorophenol)	-	on request	100€
1151006	organotin compounds in textiles	CAS 1118-46-3 (monobutyltin trichloride), CAS 3091-25-6 (trichlorooctylstannane), CAS 683-18-1 (dibutyltin dichloride), CAS 3542-36-7 (dioctyltin dichloride), CAS 1461-22-9 (tributyltin chloride), CAS 3091-32-5 (tricyclohexyltin chloride), CAS 1461-25-2 (tetra-n-butyltin)	-	on request	100€
1151007	perfluorinated compounds in textiles	CAS 1763-23-1 (perfluorooctane sulfonic acid)	-	on request	100€
1151008	pesticides in textiles	Chlorinated and phosphorus containing pesticides	-	on request	100€
1151009	determination of the total metal content in textiles	e.g. tin, cadmium and mercury	-	on request	100€
1151090	phthalates in textiles	CAS 28553-12-0 (DINP), CAS 117-81-7 (DEHP), CAS 117-84-0 (DNOP), CAS 26761-40-0 (DIDP), CAS 85-68-7 (BBP), CAS 84-74-2 (DBP), CAS 84-69-5 (DIBP), CAS 131-18-0 (DPP), CAS 71888-89-6 (DIHP), CAS 117-82-8 (DMEP)		on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

## textiles

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151091	PAH in textiles	CAS 91-20-3 (naphthalene), CAS 120- 12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthen), CAS 207-08-9 (benzo(k)fluoranthen), CAS 205-82-3 (benzo(j)fluoranthen), CAS 50-70-3 (benzo(e)pyren), CAS 50-70-3 (benzo(a)pyren), CAS 53-70-3 (dibenz(ah)anthracene) (minimum 5 of the parameters quantitative)	A PAH concentration in the samples of approximately 0,1-10 mg/kg per PAH is to be expected.	on request	100€
1151143	determination of lead release with saliva simulant solution in textiles (EN 16711-3)	lead		on request	100€
1151165	Elemental determination in textiles by X-ray fluorescence analysis (XRF)	Determination of various elements, e.g. nickel, copper, zinc, lead	-	on request	100€
1151172	extractable dyestuffs in textiles (ISO 16373-2)	Detection of at least 3 extractable dyestuffs	-	on request	100€
1151174	Chlorobenzenes and chlorotoluenes in textiles (EN 17137)	At least 4 different substances quantitatively	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

## tattoo ink

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151030	preservatives in tattoo ink	benzisothiazolinone (BIT)	-	арр. 10 g	100€
1151031	aromatic amins in tattoo ink	aniline, o-Anisidine, o-toluidine, 5- nitro-o-toluidine	-	арр. 10 g	100€
1151039	nickel in tattoo ink	tin, zinc, nickel, strontium, antimony, barium, cadmium, cobalt, lead (minimum 4 of the parameters quantitative)	-	2 g	100 €

## jewellery

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151043	jewellery (acc. to EN 1811)	testing for nickel	-	1 metal 54x85x1 mm	100€
1151166	Lead and cadmium in jewelry	Lead, cadmium	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

## cosmetics

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151022	soap	AOX, EOX	-	on request	100€
1151023	care products	methylparaben, ethylparaben, propylparaben, n-butylparaben, phenoxyethanol, benzoic acid, sorbic acid, methylisothiazolinone, isobutylparaben	-	50 g	100€
1151024	shampoo, lotion	fat, density, pH value, dry residue, water content, urea	-	300 ml	100€
1151025	cream, lotion	dexpanthenol, tocopherolacetat, retinolpalmitate	-	50 g	100€
1151026	dental care	fluoride	-	50 ml	100€
1151027	metals in cosmetics	aluminium, copper, zinc	-	15 ml	100€
1151071	heavy metals in cosmetics	lead, arsenic, antimony, nickel, cobalt, zinc, cadmium	-	50 ml	100€
1151028	quant. determination of UV filters	EHS, BMDM, EHT, PBSA, OC, titanium dioxide	-	25 g	100€
1151029	PAH in decorative cosmetics	naphthalene, anthracene, benzo(a)anthracene, chrysene, benzo(b)fluoranthen, benzo(k)fluoranthen, benzo(j)fluoranthen, benzo(e)pyren, benzo(a)pyren, dibenz(ah)anthracene	A PAH concentration in the samples of approximately 0,5-50 mg/kg per PAH is to be expected.	5 g	100€
1151037	tensides in cosmetics	Sodium Laureth Sulfate, Cocamidopropyl betaine (CAPB), Coco-glucoside	-	on request	100€
1151038	mineral oil hydrocarbons in care products	MOSH C10 - C50, MOAH C10 - C50	-	10 g	100€
1151069	anti dandruff substances	pirocton-olamine, zinc pyrithione	-	5 g	100€
1151070	solvents	ethanol, isopropyl alcohol, acetone, glycol	-	50 ml	100€
1151117	perfume, body spray	flash point	-	on request	100€
1151128	self-tanner	dihydroxyacetone, formaldehyde	-	on request	100€
1151129	determination of sunscreen UVA photoprotection in vitro (ISO 24443)	UVA photoprotection	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

printing inks

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151010	migration of printing ink constituents quant. determination of monomers and initiators food simulating matrices: 50% ethanol, 95% ethanol type 1	CAS 94100-97-1: Di(tri-methylolpropan)tetraacrylat (Di-TMPTA), CAS 57472-68-1: Dipropylene glycol diacrylate (DPGDA), CAS 119313-12-1: 1-Butanone,2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)-CAS 84434-11-7: 2,4,6-trimethylbenzoylphenyl phosphinate	-	on request	113€
1151011	migration of printing ink constituents quant. determination of monomers and initiators food simulating matrices: 50% ethanol, 95% ethanol type 2	CAS 42978-66-5: Tri(propylene glycol)diacrylate (TPGDA), CAS 15625-89-5: Tri(methylolpropan)triacrylate (TMPTA), CAS 272460-97-6: 1-Propanone,1-[4- [(4-benzoylphenyl)thio]phenyl]-2- methyl-2-[(4-methylphenyl)sulfonyl]-, CAS 162881-26-7: Bis(2,4,6- trimethylbenzoyl)- phenylphosphineoxide	-	on request	113€
1151012	printing ink constituents in synthetic samples - monomers type 3	CAS 94100-97-1: Di(tri-methylolpropan)tetraacrylat (Di-TMPTA), CAS 57472-68-1: Dipropylene glycol diacrylate (DPGDA), CAS 42978-66-5: Tri(propylene glycol)diacrylate (TPGDA), CAS 15625-89-5: Tri(methylolpropan)triacrylate (TMPTA)	-	50 ml	113€
1151013	printing ink constituents in synthetic samples - initiators type 4	CAS 119344-86-4: 2-dimethylamino-2-(4-methyl-benzyl)-1-(4-morpholin-4-yl-phenyl)-butan-1-one CAS 84434-11-7: 2,4,6- trimethylbenzoylphenyl phosphinate CAS 272460-97-6: 1-Propanone,1-[4- [(4-benzoylphenyl)thio]phenyl]-2- methyl-2-[(4-methylphenyl)sulfonyl]-, CAS 162881-26-7: Bis(2,4,6- trimethylbenzoyl)- phenylphosphineoxide	-	10 g	113€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

## toys

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151040	elements in toys; scrapped- off materials	tin, zinc, nickel, strontium, antimony, barium, cadmium, cobalt, lead	-	арр. 5 д	100€
1151041	colourfastness of articles for common use type 1	Test with artificial saliva	-	app. 10 x 10 cm	100€
1151042	colourfastness of articles for common use type 2	Test with artificial saliva	-	app. 10 x 10 cm	100€
1151057	toys on water basis	methylisothiazolinone (MI), benzisothiazolinone (BIT)	-	арр. 10 g	100€
1151106	finger color	N-Nitrosodiethanolamine (NDELA)	-	on request	100€
1151107	toy material extract: dyes	dyes	-	on request	100€
1151100	aqueous migrate: phenol	phenol	-	on request	100€
1151109	aqueous migrate: bisphenol A	bisphenol A	-	on request	100€
1151110	aqueous migrate: acrylamide	acrylamide	-	on request	100€
1151111	wobble mass, slime (EN 71-3)	boron	-	on request	100€
1151112	formaldehyde release (EN 717-3) (use of a model matrix)	formaldehyde (flask method)	-	on request	100€
1151115	primary aromatic amines in finger paint and colorants	CAS 95-53-4 (o-Toluidine), CAS 90-04-0 (2-Methoxyaniline), CAS 106-47-8 (4-Chloraniline), CAS 91-59-8 (2-Napthylamine), CAS 92-87-5 (Benzidine), CAS 62-53-3 (Aniline), CAS 119-93-7 (3,3'-Dimethylbenzidine), CAS 91-94-1 (3,3'-Dichlorbenzidine) and CAS 119-90-4 (3,3'-Dimethoxybenzidine)	-	on request	100€
1151148	preservative in finger pain (EN 71-7)	sorbic acid, benzoic acid, 2- phenoxyethanol, PHB ester	-	on request	100€
1151170	Lead and cadmium in children's toys (CPSC-CH- E1004-11, CPSC-CH-	Lead, cadmium	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

cleaning agent

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151072	organic acids	citric acid, formic acid, amidosulfonic acid	-	on request	100 €
1151073	oxidizing agent	sodium hypochlorite, hydrogen peroxide, percarbonate	-	60 ml	100 €
1151074	reducing agent	sodium dithionite, sulphurous acid, oxalic acid	-	on request	100 €
1151075	acid / alkali cleaning agent	pH value, acid reserve, alkali reserve	-	50 ml	100 €
1151076	alcohol-based cleaner	ethanol	-	50 ml	100€
1151145	hygienic rinsing agent - disinfectant	DDAC (didecyldimethylammonium chloride), BAC (benzalkonium chloride)	-	on request	100€
1151146	denaturant	Bitrex (denatonium benzoate)	-	on request	100 €
1151147	disinfectant	formaldehyde, glutaraldehyde, triclosan	-	on request	100 €

## metals

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151000	determination of elements in metal by X-ray fluorescence analysis (XRF)	determination of various elements, e.g. nickel, copper, zinc, lead	-	on request	100€
	chemical analysis of refractory products by X-ray fluorescence (XRF) - Fused cast-bead method (ISO 12677)	Determination of various elements, e.g. nickel, copper, zinc, lead	-	on request	100€

e-cigarettes

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151001	liquids from e-cigarettes	glycerin, propylene glycol, nicotine	-	on request	100€
1151138	liquid from CBD cigarettes	CBD, terpenes	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

# leather

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151093	identification of leather by microscopy	identification of leather (imitation leather and leather of various animal species)	-	on request	100€
1151094	determination of the total metal content in leather (ISO 17072-2)	e.g. chromium, lead and cadmium	-	on request	100€
1151095	determination of water soluble substances in leather	water-soluble substances, water- soluble inorganic substances	-	on request	100€
1151096	determination of volatile substances in leather	Mass of volatile substances	-	on request	100€
1151097	determination of preservatives in leather	CAS 21564-17-0 (TCMTB), CAS 59-50- 7 (CMK), CAS 90-43-7 (OPP), CAS 26530-20-1 (OIT)	-	on request	100€
1151098	Leather – formaldehyde content ISO 17226-1	CAS 50-00-0 (formaldehyde)	-	on request	100€
1151099	determination of aromatic amines from azo dyes in leather	qualitative and quantitative detection of azo dyes over aromatic amines according to ISO 17234-1	-	on request	100€
1151100	determination of 4- aminoazobenzene in leather	CAS 60-09-3 (4-aminoazobenzene) according to ISO 17234-2	-	on request	100€
1151101	chlorophenols in leather	Tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol- isomers and CAS 87-86-5 (pentachlorophenol)	-	on request	100€
1151102	organotin compounds in leather	CAS 1118-46-3 (monobutyltin trichloride), CAS 3091-25-6 (trichlorooctylstannane), CAS 683-18-1 (dibutyltin dichloride), CAS 3542-36-7 (dioctyltin dichloride), CAS 1461-22-9 (tributyltin chloride), CAS 639-58-7 (triphenyltin chloride), CAS 3091-32-5 (tricyclohexyltin chloride), CAS 1461-25-2 (tetra-n-butyltin)	-	on request	100€
1151103	alkylphenols and alkylphenol ethoxylates in leather	CAS 68412-54-5 (nonylphenol ethoxylate), CAS 9002-93-1 (octylphenol ethoxylate), CAS 84852-15-3 4-(nonylphenol isomer mixture), CAS 140-66-9 (4-tertoctylphenol)	-	on request	100€
1151113	naphthalene in leather	CAS 91-20-3 (naphthalene)	-	on request	100€
1151137	determination of extractable metals in leather (ISO 17072-1)	e.g. chrome, lead and cadmium	-	on request	100€
1151168	Dimethyl fumarate (DMFU) in footwear materials (ISO 16186)	Dimethyl fumarate (DMFU)	-	on request	100€
1151169	Dimethylformamide (DMF) in footwear materials (ISO 16189)	Dimethylformamide (DMF)	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 46.

## kitchen utensils and dishes

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151133	release of metals from enamel (ISO 4531)	Release of various metals in the simulant 3% acetic acid	-	on request	100€
1151134	specific migration of lead and cadmium from ceramics (EN 1388-1)	Lead and cadmium in the simulant acetic acid (40 ml/l)	-	on request	100€
1151135	specific migration of cobalt from ceramics	Cobalt in the simulants 4% acetic acid, 0,5% citric acid and 10% acetic acid	-	on request	100€

## adhesive

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151139	preservatives in adhesive	Methylisothiazolinone (MIT), Chloromethylisothiazolinone (CIT), Benzisothiazolinone (BIT), Octylisothiazolinone (OIT), Phenoxyethanol	-	on request	100€
1151140	formaldehyde in adhesive	Formaldehyde	-	on request	100€
1151141	VOC in adhesive	VOC in the value range 0,01-0,1% (100- 1000 mg/kg), e.g. 1-Butanol, Acetone, Benzene, Toluene, Styrene	-	on request	100€
1151142	solvents in adhesive	e.g. ethanol, acetone, benzene, toluene, methyl acetate	-	on request	100€
1151160	Migration of primary aromatic amines in adhesive	CAS 823-40-5 (2,6-Diamino-toluol), CAS 95-80-7 (2,4-Diamino-toluol), CAS 101-77-9 (4,4-Diamino- diphenylmethan), CAS 1208-52-2 (2,4- Diamino-diphenylmethan), CAS 6582- 52-1 (2,2-Diamino-diphenylmethan) in the simulant 3% acetic acid	-	on request	100€

## rubber

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151144	determination of the content of PAH in rubber	CAS 91-20-3 (naphthalene), CAS 120- 12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(j)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	-	on request	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

# organoleptic reference material

Please use the order from on page 46.

## films

Art. No.	material description	parameter *	additional information	packaging unit	prices
13351001	sensory of packaging acc. to DIN 10955	sample set (raw material + instruction) for the intensity testing	-	sample set for one panel	161 €

# paper / board

Art. No.	material description	parameter *	additional information	packaging unit	prices
13351003	sensory of board and paper acc. to EN 1230	sample set (raw material + instruction) for the intensity testing	-	sample set for one panel	161 €
3351002	threshold value examination "off flavour"	sample set (raw material + instruction) for the threshold value determination	off-flavour caused by packaging	sample set for one assessor	100€

<sup>\*</sup> in individual cases it can happen that there is no reference value available for a listed parameter

# other products / services

Please use the order from on page 46.

material description	description	additional information	packaging unit	price
ADR- security certified DRRR- freezing packaging system RM-ADR VP 1	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 24 hours	VP 1 app. 310 x 250 x 190 mm	16 €
ADR- security certified DRRR- freezing packaging system RM-ADR VP 2	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 48 hours	VP 2 app. 350 x 350 x 300 mm	26€

# Deutsches Referenzbüro für order form reference material 46 Ringversuche und Referenzmaterialien notes (e.g. time period for regular quantity material type / material description / article no. delivery) Please send order form to: fax-no. +49 (0)8 31/960 878-99 Please notice that we process orders only at a minimum order value of 50 €. e-mail: info@DRRR.de An offer with the total costs is needed A Purchase order from the purchasing department will follow **DRRR-customer number** company company (additional line) contact person street post-code /city country (if not Germany) fon fax e-mail e-mail for invoices VAT-ID-No. (if available)

date

With your signature you agree with our general terms and

conditions.

signature

## quality management / quality assurance

We have collected wide experience in building up and operating process orientated quality management systems. Our experience is based on an intensive quality management qualification (DQG –EOQ quality manager). Feedback of our costumers gives us a wide overview about the various requirements that companies have to pass at audit situations.

As a qualified and examined auditor (DGQ-EOQ auditor quality, TGA) we are capable to estimate a company from different perspectives if quality management system is fit for audit and following we can show potentials for improvement.

We offer assistance for the following questions:

- building up process orientated quality management
- building up of a secure testing agent system
- assessment of quality systems in preparation for audits
- advice in operating effective quality management systems

With our expertise in interpreting ISO 9001 over IFS to DIN 17025 we serve companies of food economy and laboratories.

On the basis of our international activities we also have experience in building up and implementation of quality management systems in developing countries. We place our services at your disposal for international questions.

Please do not hesitate to contact us.

## seminars / training / consulting

#### **IR-Seminar**

The IR-seminar explains how to analyze different kind of food by IR spectroscopy. Furthermore specific peculiarties for the IR calibartion of selected food will be discussed. The specific peculiarties of the calibration will be explained intensify. How to calibrate? When you have to update the calibration? What is the cause of measurement problems?

The seminar will be complemented by theoretical exercises on IR spectroscopy. In the practical excericise calibration data sets will be testes for suitability and critical data sets will be identifed.

#### Sensory seminar

The importance of the sensory in the food stuff industry will be explained and clarified in practice. The current state of new tastes is presented. Furthermore the participant will be enabling to apply the sensory testing methods. The use of sensory methods will be explained and on the basis of various sensory materials implemented.

The sensory measurement uncertainty of each participant will be determined at a practical example.

#### **User-Workshop**

Typical questions in the chemical and microbiological analysis of food, especially dairy products are presented and possible solutions will be demonstrated.

Furthermore efficient ways to increase the laboratory quality will be presented. The seminar is accompanied by the practical experience of users

A lot of space for the exchanging of knowledge and experience is provided at the User-Workshop. Therefore some experts are available as contact persons.

#### Statistics seminar for beginners

This seminar presents the Binomial-, Poissonand Normal distribution and the application of them. Problem cases and the classis misinterpretation due to a false outlier treatment by the application of the Normal distribution are shown. The seminar is complemented by practical exercises with the notebook.

#### Statistics seminar for advanced learners

This seminar presents the Shapiro-Wilk-Test, qui²-adaptation test, Median and MAD (Median absolute deviation) and their application. Furthermore the participants will be informed about the robust standard deviation after Qmethod and the robust average after Hampel.

The seminar is complemented by practical exercises with the notebook.

## seminars / training / consulting

# Implementation of DIN EN ISO/IEC 17025 in food laboratories

The participants will learn all items to implement a successful internal audit. Furthermore typical errors of the implementation of the audit will be targeted and avoidance strategies are communicated. The reliable identification of the deviation in audits and their successful processing in the form of measures will be trained.

You will benefit of the extensive experience of the DRRR, because the DRRR go through the audit situation in a perspective of 360 ° as an auditor, as an audited person and as a neutral expert.

#### Inhouse-Training

We consider lectures, training and seminars as in important duty. Not primary concerning commercial possibilities but by reason that the knowledge transfer is the most important item in every department of our society.

- Seminar and training (one-day) of handling and implementation of proficiency testing
- Seminar and training (one-day) of operating control charts
- Seminar and training of sensory (customised product sensory)

For special requirements we also offer customised training programmes.

For questions about contents and conditions do no hesitate to contact us.

## Sales terms and delivery conditions

#### Terms of payment

Our prices are net prices (plus 19% value added tax). Customers from European countries can provide us with their EU-VAT-Identification number, then they will be exempt from German value added tax. Terms of payment: 8 days net, without deduction

Fees for specially required customs documents such as import permits or similar will be invoiced according to time and effort.

Our bank details:

Raiffeisenbank in Allgäuer Land / bank code 733 692 64 Account 102350 / IBAN DE 94733692640000102350 BIC code: GENO DEF1DTA Sales tax ID no. DE254613132

#### Terms of delivery

tax number 127/124/32207

Shipping costs for reference materials and proficiency tests will be invoiced according to time and effort. All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the proficiency test can be reclaimed by the DRRR upon request. The DRRR shall bear the shipping costs for the return transport if the materials are reclaimed.

Proficiency tests or reference materials marked "frozen" are shipped with our ADR safety tested frozen packaging system. A packaging fee is charged for the polystyrene box including cooling accumulators and air bubble film as well as the protective outer packaging. Frozen materials are shipped by express service. With the delivery of reference materials, you will receive a quality certificate with the details of the respective reference values as well as associated uncertainties.

#### Terms of delivery (risk group 1, 2 and 3)

Proficiency tests or reference materials marked with "Risk Group 1" are not subject to any participation restrictions according to § 44 IfSG (Infektionsschutzgesetz).

For proficiency tests or reference materials marked with "risk group 2, or risk group 3\*\*", we need a permission from your laboratory according to § 44 IfSG (Infektionsschutzgesetz) or similar. Please enclose a copy of the permission with your registration or order.

Our general terms and conditions (Allgemeine Geschäftsbedingungen) are valid!

#### General terms and conditions

The German reference office for proficiency testing and reference materials GmbH (hereinafter referred to as DRRR) for freely agreed services, in particular testing, training and expert activities as well as reference materials.

#### § 1 General terms and conditions

The client acknowledges the General Terms and Conditions and price lists valid at the time of placing the order. Deviating terms and conditions of individual clients cannot be accepted.

Collateral agreements, promises and other declarations by the employees of the DRRR are only binding if they are expressly confirmed in writing by the DRRR. This shall also apply to amendments to this clause. If individual regulations within this contract or its components are ineffective, this does not affect the validity of the remaining regulations. The contracting parties shall have a duty, acting in accordance with the principles of good faith, to replace any invalid provision by one which is valid and which produces the same economic outcome as that intended by the invalid provision and providing that such replacement does not result in any change to the content of the contract; the same shall also apply analogously to any matter which requires regulation but for which no provision is made in these Terms and Conditions.

#### § 2 Execution of the order

The orders accepted by the DRRR shall be carried out or expert opinions shall be prepared in accordance with the recognized rules of technology and – unless otherwise agreed in writing – in the manner customary at the DRRR. No responsibility shall be assumed for the correctness of the safety programs or safety regulations on which the tests are based, unless expressly agreed otherwise in writing.

The scope of the DRRR's work shall be specified in writing when the order is placed. If the proper execution of the order results in changes or extensions to the specified scope of the order, such changes or extensions shall be agreed in writing prior to execution. If the Customer can no longer be reasonably expected to adhere to the contract with regard to the changes or extensions, the Customer shall in this case be entitled to withdraw from the contract. However, according to § 649 BGB, the client must pay the agreed remuneration or, in the absence of an agreement, an appropriate remuneration.

The contractual services of the DRRR are deemed to have been rendered upon preparation of the respective final reports or expert reports.

A seminar registration can be cancelled free of charge for up to 6 weeks, after which the customer will be invoiced for the costs of the participants depending on the time and effort involved.

The following cancellation conditions apply to the cancellation of a proficiency testing:

Canadatian natification pariods	Permanent registration (D)
Cancelation notification period:	single (one-time) registration (E)
up to 2 months hefers the proficiency testing	no costs (D)
up to 3 months before the proficiency testing	50,00 € (E)
2 months before the proficional testing start	50,00 € (D)
3 months before the proficiency testing start	half proficiency testing price (E)
sample shipment – deadline of the results	complete price of the proficiency testing and any further incurred costs (D & E)

#### § 3 Deadlines

The order deadlines specified by the DRRR shall not be binding unless their binding nature has been expressly agreed in written form.

#### General terms and conditions

#### § 4 Warranty and liability

The integrity of the sample material to a defined condition is only guaranteed until the first border crossing in the case of foreign shipments.

Safety note: When sending materials of risk group 2, the DRRR must receive a letter from the recipient stating that the recipient is authorized to handle hazardous materials (e.g. pathogenic germs).

The DRRR's warranty only covers the services expressly commissioned to it pursuant to Section 2.

No warranty is thereby assumed for the correctness and functioning of the relevant overall system, measuring instruments or materials to which the examined or tested samples belong; in particular, the DRRR bears no responsibility for packaging, material selection and construction of the examined systems, measuring instruments or assemblies, unless these issues are expressly the subject of the order.

Even in the latter case, the warranty obligation and legal responsibility of the manufacturer are neither limited nor assumed

The warranty obligation of the DRRR is limited to the rectification of an error or defect or, in the absence of a warranted characteristic, to the achievement of this characteristic within a reasonable period of time. If the rectification or creation of the characteristic fails, i.e. if it becomes impossible or unreasonable for the Customer or is refused or unduly delayed by the DRRR, the Customer shall be entitled to demand a reduction in the remuneration or rescission of the contract, at its discretion.

The DRRR shall not be liable for any work performed by the Customer in the event of incorrect proficiency tests or reference materials.

The DRRR only assumes liability for certain properties, in particular for the fact that the service is suitable for the purposes of the Customer, if a corresponding assurance of the properties in question has been given. Any liability for consequential damages from positive breach of contract due to warranted characteristics is excluded, unless the warranty was intended to protect against such consequential damages. Claims for damages of the client from §§ 463, 635 BGB due to the lack of assured characteristics remain unaffected.

If an error or defect that does not represent the absence of a warranted characteristic is due to a circumstance for which the DRRR is responsible, the DRRR shall only be liable for any damage incurred by the Customer as a result thereof per order up to a maximum amount that corresponds to the value of the order agreed in accordance with Section 2.

The materials may only be used for the corresponding scientific purpose by trained qualified personnel. The DRRR is in no case responsible and liable for used, unused or unusable samples.

The samples are intended for analytical purposes only. The DRRR assumes no liability if the samples are not used for the intended analytical purposes.

All materials are definitely not suitable for human consumption unless they are sensory materials. Oral ingestion of materials not intended for sensory purposes can be harmful to health.

In the case of sensory materials, it is the responsibility of the test persons themselves to check whether they can test the materials with regard to allergies. The ingredients of the sensory materials are declared.

All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the interlaboratory comparison can be reclaimed by the DRRR upon request. The DRRR will bear the shipping costs for the return transport, if the materials are reclaimed.

The analytical properties of the material can only be guaranteed if the transport, storage and use conditions specified by the DRRR are observed.

For frozen samples, the DRRR only guarantees that the samples will be treated in accordance with the material properties stated in the data sheet. For frozen samples delivered to countries outside the EU, we can only guarantee the sample properties up to the first customs clearance point at the respective EU border.

#### § 5 Exclusion of further liability and claims

The risk (transport and remuneration risk) shall pass to the Customer as soon as the goods have left the DRRR, regardless of whether the goods are transported by the Customer's own or third-party means of transport. Claims for damages by the client are excluded. This does not apply to intent, gross negligence, breach of essential contractual obligations of the DRRR or the lack of properties guaranteed in writing.

All further claims of the client for direct and indirect damage – for whatever legal reason – in particular claims for damages due to positive breach of contract or from tort and for compensation for damage that did not occur on the object of the order itself are excluded. Irrespective of this, the client is obliged to take out the usual insurance against direct and indirect damage.

#### General terms and conditions

#### § 6 Remuneration and payment terms

Unless otherwise stated, the prices are in euros and do not include value added tax. This will be invoiced separately at the currently applicable rate in accordance with the applicable tax regulations.

The goods remain the property of DRRR until they have been paid for in full by the customer.

The fees according to the DRRR's currently valid List of Services shall apply to the calculation of the services unless a fixed price or another basis of assessment has been expressly agreed in writing. In the absence of a valid specification of services, individual contractual arrangements shall be made in each case.

Advances on costs can be requested. Partial invoices can also be issued in accordance with the services rendered. Partial invoices need not be marked as such. The receipt of an invoice does not mean that the DRRR has fully invoiced the order.

The fees are due for payment immediately after invoicing, at the latest by the date printed on the invoice (8 days net, without deduction). Unless another arrangement has been made. If payment is made at a later date, default interest of 2% above EURIBOR will be charged on the outstanding invoice amount for the period between the due date and receipt of payment.

Objections to the invoices of the DRRR must be notified in writing within a preclusive period of 14 days after receipt of the invoice, stating reasons.

#### § 7 Confidentiality and copyright

The DRRR reserves the copyrights to the expert opinions, test results, calculations, etc. prepared by it. The DRRR and its employees may not unauthorizedly disclose or exploit business and operating relationships that come to their knowledge in the course of their work.

The DRRR may take copies for its files of written documents that have been made available to the DRRR for inspection and that are of importance for the performance of the assignment.

If the proficiency test report and the laboratory code are sent by e-mail, no guarantee can be given that confidentiality will be ensured.

#### § 8 Place of jurisdiction, place of performance, applicable law

The place of jurisdiction for the assertion of claims for both parties to the contract is Kempten, provided that the conditions according to § 38 of the German Code of Civil Procedure are met. This applies in particular to dunning proceedings.

The place of performance for all obligations arising from the contract is Kempten, the contractor's registered office.

The contractual relationship and all legal relationships are subject exclusively to the law of the Federal Republic of Germany applicable between domestic contracting parties, excluding the Uniform Law on the Sale of Goods and the United Nations Convention on Contracts for the International Sale of Goods.

#### § 9 Guarantee of services and goods from cooperation partners

For reference materials sold on behalf of our cooperation partners, the following conditions apply with regard to liability and warranty:

The liability of our cooperation partners, their legal representatives and vicarious agents is limited to cases of intent, gross negligence, absence of a warranted characteristic and breach of an obligation, the non-compliance of which would endanger the purpose of the contract. The liability for proven damages due to grossly negligent conduct is limited to the amount of the contractual remuneration; no liability is assumed for consequential damages. Liability is limited to the use of the reference materials for the purposes described in the respective certificate

Our cooperation partners guarantee the application of scientific diligence as well as compliance with the recognized rules of technology.

Our cooperation partners are entitled to rectify any defects that occur. If the rectification of defects fails, the client is entitled to demand a reduction of the remuneration or cancellation of the contract at his discretion. Further warranty claims are excluded.

The warranty is limited to the stated expiration date of the reference materials.

This applies to: ieLab, TGZ AQS Baden-Württemberg



# **Material testing**

# Product catalogue 2023 / 2024



Your laboratory quality

#### In the testing fields:

- Thermoplastics
- Rubber and TPE
- Plastic products such as
  - Plastic films
  - Plastic pipes
  - Foams
  - Geosynthetics
  - Composites
- Plastic paintwork
- Metal paintwork
- Plastic electroplating
- Textiles
- Leather
- Personal protective equipment (PPE)
- Building materials
- Metals / wheels
- Paper | board
- Vibration | Shock
- Electromagnetic compatibility (EMC)

Image source: iStock.com/JazzIRT

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**PROFICIENCY TESTING** 

#### **DRRR** - The company

#### Deutsches Referenzbüro für Ringversuche und Referenzmaterialien GmbH (DRRR GmbH)

#### Proficiency testing provider

The DRRR offers laboratories from the processing industry as well as official and private laboratories all aspects of quality assurance from one single source. Our focus is on food, consumer goods, packaging, building materials, plastics (polymers) and textiles, as well as microbiological analysis in these categories.

#### Accreditation ISO/IEC 17043:2010 (A2LA)

The DRRR is an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is only valid for the matrices/parameters listed on the A2LA scope of accreditation certificate [#5494.01].

Whether a proficiency test is covered or not covered by the scope of accreditation by A2LA can be viewed in our online portal (ODIN).



More than 500 PT's in 2021

#### **Accredited PT-provider**





#### Accreditation DIN EN ISO/IEC 17043:2010 (DAkkS)

The DRRR is an accredited proficiency testing provider by DAkkS according to DIN EN ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [D-EP-17063-01-00].

Whether a proficiency test is covered or not covered by the scope of accreditation by DAkkS can be viewed in our online portal (ODIN).

#### Reference material producer

We offer many certified reference materials as well as advise on quality matters and quality assurance training in the laboratory and the production.

#### **Customer support**

We provide advice to our customers in all question of validation of chemical-physical, microbiological, organoleptic and physical-mechanical analysis or statistical questions.

High-quality reference material

Any time competent contact persons

More than 50 new Proficiency tests:

We have added **more than 50 new Proficiency tests** to the material testing calalogue 2023/2024 in the follwoing testing fileds:

#### Test methods Volkswagen AG

The Volkswagen AG qualification program will continue in 2023, and DRRR is the official proficiency test provider for this program.

These cover a wide range of subject areas:

- Leather
- Textiles (upholstery fabrics)
- Foams
- Plastics
- Plastics Electroplating
- Plastics surfaces
- Rubber / O-rings
- Burning behavior

#### • Paper | Board | Tissue products

Over 10 new proficiency tests have been included on the following topics:

- mass per unit area
- air permeability
- water absorption
- thickness and density

#### Spot developments

Through specific further developments, we offer even better possibilities for laboratory comparison in many test areas. These include:

- Corrosion (PV 1210 | ISO 12997-1)
- Painting (SAE J400 | IEC 60068-2-70)
- PPE (ISO 13997 | EN 455-2)
- TPE (VDA 2019)
- Thermal insulation materials

#### Environmental testing and EMC

In cooperation with the consulting company 4TIERS GmbH from Hamburg, Germany, we have developed a new new proficiency testing program in the field of environmental testing and EMC.

Initially, the focus will be on the following test areas:

- Vibration / Shock
- Electromagnetic compatibility (EMC)

Specimens specially developed for proficiency tests will be sent from laboratory to laboratory. This means that all laboratories perform the tests on the same test specimen, which is returned to us after the test.

The EMC area has been significantly expanded for the year 2023 and subdivided into the test areas **Radiated Emission** and **Radiated Immunity**. Specific proficiency tests are available for the following industries:

- Aerospace
- Automotive / Automobile
- Military
- Shipping
- Railroad / rail vehicles

#### **Compact registration forms**

Besides the comfortable online registration in ODIN you can also use the registration forms (pdf) for different testing fields. Please visit our website.

#### www.DRRR.de

#### Returning of ten result sheets

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds for free.

Please note, that the free of charge service is only valid for returning result sheets by ODIN.

- · Check different methods
- Check different lab technicians
- Check different testing equipment

#### **ODIN - proficiency testing online**

Simply brilliant, your proficiency testing with ODIN (Online Data Information Network).

- Fast and easy online registration / online announcement in our online catalogue
- Direct management and booking of the proficiency testing
- Overview about the registered proficiency testing schemes
- Fast and secure submission of your results via ODIN
- Online access to individual customers reports and certificates
- Supervisor rights available to overview all PTs of a multi-site company
- Saving of costs through booking and submission of your results via ODIN

Secure payment with IRIS (Internet Remuneration Information Service).

- Easy and safe payment by credit card
- Overview about all invoices
- · Fast and secure online access

You can also pay your invoice via banktransfer or bank check.

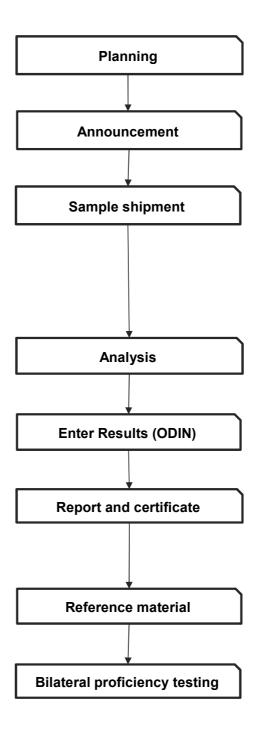


#### **Proficiency testing organisation**

- A precise planning and organisation of each proficiency testing round
- 2 weeks before we will dispatch the samples you will get an announcement with the proficiency testing details
- According to our requirements, you will receive suitable sample material for the respective proficiency testing scheme.

We reserve the right to have an external subcontractor carry out the sample purchase and any necessary testing.

- After receiving the samples you will have a period of 4-8 weeks for analysing
- Mail back the results via internet by using our result sheets in an Excel file or fill out our result sheets online in ODIN
- At the latest 4-8 weeks after the deadline you will get the report (optional by login in ODIN, as hardcopy by regular mail or as pdf-file by e-mail) incl. participation certificate with overview of your lab performance
- After the proficiency testing we can offer you reference materials
- Possibility to perform a bilateral proficiency testing (bPT)



#### Benefits of proficiency testing

#### Why take part in proficiency testing?

- Participation in proficiency testing schemes is required by international standards or national facilities, organizations and customers
- Participants can compare, assure and improve their own performance and quality against other laboratories worldwide
- Laboratories can recognize how well they have been completed with the applied method compared to the other laboratories
- · Saving on the costs of testing
- Unquestionable lab performance towards customers, authorities and certification authorities
- Saving on the costs of lab development and maintenance
- Saving on the costs of lab development and maintenance
- Saving on production costs by avoiding waste of raw material

### Your benefits in DRRR proficiency testing schemes

- Objective and independent impression of your quality and your performance of your routine testing method compared to the other participating laboratories
- Saving the costs, because you have the opportunity to analzye more samples and more parameters in one proficiency testing
- External demonstration of your performance with the results of the proficiency testing
- Build up of your own external quality assurance system with our statistical tools (contains statistical control charts, MS-Excel evaluation files and reference materials). With these tools incorporated your external quality assurance rays unmatched confidence
- Detailed planning and organization of your proficiency testing and an easier, faster and better communication with us



Image source: iStock.com/3dts

#### Statistical methods

We work according to:

- ISO Guide 31 / 35
- DIN EN ISO 17034
- DIN EN ISO/IEC 17020 / 17025 / 17043
- ISO 13528

Laboratory performance:

by calculation of the following paramters:

- z-score
- · z'-score
- CRD-Wert

Statistical models:

Depending on the type of the distribution of the data, different statistic models are used:

- Conventional statistics (all values)
- · Conventional statistics (no outliers)
- Robust statistics (Hampel estimator, Q-method)
- Robust statistics (Median, MAD/nIQR)
- Expert laboratory (expert decision)

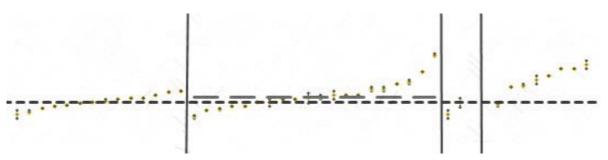
Homogenous and stable sample material

Calculation of precision data acc. to ISO 5725-2 in many proficiency testing schemes

Detailed information can also be found in our statistical protocol.

Method-specific evaluation according to the reference method (if available)

Additional extended method evaluation (in case data are available)



#### Z'-score > 2: What to do?

You are not satisfied with your laboratory performance: What can you do?

Due to your showed laboratory performance you have been asked by the accreditation body, the monitoring authority or your customer to initiate measures to improve your laboratory performance.

These measures are often connected with considerable efforts in the laboratory and you only have a short time frame. In many cases the proof of a successful measure processing, by participation in a new proficiency testing round, is only possible in the following year. Until now it does not exist a possibility for a spontaneous performance review to equalize a previous unsatisfactory proficiency testing result.

New: The bilateral proficiency testing (bPT)!

You can book and perform individually and flexibly the bilateral proficiency testing during a determined time period.

You receive a proficiency testing sample for analyzing. You submit the results of the testing. After that you will get your proof of performance as a z'-score calculation in the form of a certificate within 1 - 2 weeks.

The performance evaluation refers to the previous regular proficiency testing, so that you can connect the bPT to the regular proficiency testing round. The used sample material is derived from a previous proficiency testing round and provides the possibility of a comparable performance evaluation with the regular proficiency testing.

#### Your terms and conditions:

Participation in a bPT is open to all laboratories. Prior participation in our regular proficiency tests is not necessary.

The report of this proficiency testing is not older than ten weeks. You register within these ten weeks for the bPT and the performance is confirmed by the DRRR. The testing period is dependent on the technical factors (parameter, matrix etc.) and will be agreed individually\*. When this time is over after the sample shipment and you do not have sent us your results in this time, we can not evaluate your results and issue a certificate for you.

(\* normally not longer than 1 - 2 weeks)
The bPT is not in the scope of accreditation of the DRRR. The realization of the bPT depends on the availability of the material.

#### **Costs bPT**

The costs are identical to the costs of the respective proficiency test from our standard program (see ODIN) plus shipping costs.

Alternative you can also order reference material.

#### **Proficiency tests - Material testing**

#### **Special characteristics**

For most of the Proficiency testing schemes the participants get 2 different samples on different testing levels. So we can ensure that the laboratory has competence for a wide range of test results.

The testing levels are on industry standard and reflect the laboratory routine.

Different testing levels

#### **Cooperation partners**

For each testing field of the material testing (plastics, textiles, building material, paper) we work together with accredited and established laboartories and experts from the industries they serve. So we can ensure to provide practical testing material. You can find a list of our partners on our homepage.

**Competent partners** 

#### Reports easy-to-understand

A clear presentation of our test results and your laboratory performance is important for us. Despite the huge volume of data and many statistical values we present the results easy-to-understand and transparent in our reports and certificates.

Reports easy-to-understand

#### Precision data acc. to ISO 5725-2

By using our market-leading statistical evaluation we calculate precision data in accordance with ISO 5725-2 for each proficiency test of the material testing. These data are important for the laboratories and can be used in the every day work.

Market leading statistical evaluation

#### **Technical assistance**

You can contact our technical experts at any time e.g. the participant sees potential for improvement in the lab performance. It is also possible to order our reference materials for additional testing.

Technical assistance

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

#### **Plastics - Dimensions of test specimens**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010978	not specified	Width and Thickness of injection moulded specimen (type 1A) e.g. with caliper	Apr-23	Login or register

### Plastics - mechanical properties

Art. No.	Standard	Proficiency testing type [A]	period	
2010988	ISO 527-1/-2	Tensile test: - Modulus of Elasticity - Tensile strength/Stress at Yield - Elong. at Tensile strength / Elong. at Yield	Apr-23	
2010886	ASTM D638	Tensile test (modulus, strength, elongation)	Apr-23	
2010765	ISO 527-1/-2	Tensile Test at +80°C	Apr-23	
2010766	ISO 527-1/-2	Tensile Test at -30°C	Apr-23	
2010881	ISO 899-1	Tensile creep test	Apr-23	
2010004	ISO 16770	Full-notch creep test [FNCT]	Apr-23	
2010116	VDA 287	High Speed Tensile Test by using a servo-hydraulic test instrument	Apr-23	
2010989	ISO 178	Flexural test: - Flexural Modulus - Flexural stress at conventional deflection - Flexural Strength - Elongation at Flexural Strength	Apr-23	
2010888	ASTM D790	Flexural test (modulus, strength, elongation)	Apr-23	
2010756	ISO 604	Compression test (strength, elongation)	Apr-23	
2010773	ISO 179-1/1eU	Charpy unnotched impact properties +23 °C	Apr-23	
2010782	ISO 179-1/1eA	Charpy notched impact properties +23 °C	Apr-23	
2010824	ISO 179-1	Charpy impact properties -30 °C	Apr-23	
2010774	ISO 180	Izod impact properties +23 °C	Apr-23	
2010006	ASTM D256	Izod impact properties +23 °C	Apr-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

#### Plastics - mechanical properties

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010884	DIN 53435	Impact test on dynstat test specimens	Apr-23	Login or register
2010885	DIN 53435	Bending test on dynstat test specimens	Apr-23	
2010977	ISO 8256	Tensile-impact test (type 1, met. A)	Apr-23	
2010882	ISO 6603-2	Instrumented puncture impact test	Apr-23	
2010883	ASTM D3763	Instrumented puncture impact test	Apr-23	
2010757	ISO 6721-5	DMA - Temperature sweep and Tg	Apr-23	

#### Specimen injection moulding

Art. No.	Standard	Proficiency testing type [A]	period	
2010785	ISO 527-1/-2	Specimen injection moulding (type 1A) and tensile test	Apr-23	
2010786	ISO 178	Specimen injection moulding (type 1A) and flexural test	Apr-23	
2010787	ISO 179-1	Specimen injection moulding (type 1A) and Charpy impact test	Apr-23	

### **Cutting of specimen**

Art. No.	Standard	Proficiency testing type [A]	period	
2010813	ISO 527-1/-2	Cutting of specimen (type 1B) and tensile test	Apr-23	
2010814	ISO 527-1/-2	Cutting of specimen (type 5A) and tensile test	Apr-23	

### Plastics - polyamide 6 and 6.6

Art. No.	Standard	Proficiency testing type [A]	period	
2010815	ISO 527-1/-2	Tensile test	Apr-23	
2010816	ISO 178	Flexural test	Apr-23	
2010817	ISO 179-1	Charpy flexural impact test	Apr-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.

#### Plastics - density | hardness | ash content

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010769	ISO 1183-1 and	Density I	Apr-23	Login or register
2010984	ASTM D792	Density II	Oct-23	
2010741	ISO 1172 and ISO 3451-1	Ash content	Apr-23	
2010651	ASTM G5630	Ash content [NEW!]	Apr-23	
2010742	ISO 868	Hardness Shore D	Apr-23	
2010811	ISO 2039-1	Ball indentation hardness	Apr-23	

### Plastics - rheological properties

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010825	ISO 1133-1/-2 and	Melt flow/volume rate (MFR/MVR) I	Mar-23
2010008	ASTM D1238	Melt flow/volume rate (MFR/MVR) II	Oct-23
2010861	ISO 1133	Melt flow/volume rate MFR/MVR (high temperature > 300°C)	Mar-23
2010213	ISO 1133-2	Melt flow/volume rate (MFR/MVR) of moisture sensitive materials	Mar-23
2010795	ISO 307	Viscosity number (sulfuric acid)	Mar-23
2010857	ISO 307	Viscosity number (m-cresol)	Mar-23
2010858	ISO 307	Viscosity number (formic acid)	Mar-23
2010859	ISO 1628-5	Viscosity number of PBT	Mar-23
2010788	ISO 11443	Fluidity of plastics - capillary rheometers	Mar-23
2010789	ISO 6721-10	Complex shear viscosity (parallel-plate)	Mar-23

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.

### **Plastics - thermal properties**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010743	ISO 11357-3 — and	DSC-Analysis: Melting point and -enthalpy I	Mar-23	Login or register
2010985	ASTM D3418	DSC-Analysis: Melting point and -enthalpy II	Oct-23	
2010854	ISO 11357-2 ASTM D3418	DSC-Analysis: Glass transition temperature	Mar-23	
2010855	ISO 11357-6 ASTM D3895	DSC-Analysis: Oxidation Induction time (OIT)	Mar-23	
2010297	ISO 11357-4	DSC-Analysis: specific heat capacity	Mar-23	
2010745	ISO 11358	Thermogravimetry (TGA) - filler content	Mar-23	
2010653	ASTM E1131	Thermogravimetry (TGA) - filler content [NEW!]	Mar-23	
2010303	ISO 6964	Carbon black content - method A, B1, B2, C	Mar-23	
2010758	ISO 11359	Coefficient of linear thermal expansion	Apr-23	
2010775	ISO 306	Vicat softening temperature (VST)	Apr-23	
2010911	ASTM D1525	Vicat softening temperature (VST)	Apr-23	
2010790	ISO 75	Temperature of deflection under load	Apr-23	
2010791	ASTM D648	Deflection temperature under flexural load	Apr-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

### Plastics - burning behaviour / Electric

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010819	FMVSS 302 DIN 75200	Burning rate	Mar-23	Login or register
2010862	UL 94 HB EN 60695-11-10	Burning rate	Mar-23	
2010863	UL 94 V EN 60695-11-10	Burning rate	Mar-23	
2010655	TL 1010	Burning behavior	Jan-23	
2010659	TL 1011	Flammability	Mar-23	
2010547	IEC 62631-3-2, VDE 0307-3-2	Surface resistance	May-23	
2010549	IEC 62631-3-1, VDE 0307-3-1	Volume resistivity	May-23	
2010864	EN 60695-2-13	Glow-wire ignition temperature (GWIT)	Mar-23	
2010979	EN 60112	CTI – Tracking	Mar-23	
2011052	IEC 60243-1	Electric strength [NEW!]	Apr-23	
2011053	IEC 60695-10-2	bnormal heat - Ball pressure test [NEW!]	Apr-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.

#### **Plastics - emissions**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010851	VDA 270 PV 3900	Odour test	Mar-23	Login or register
2010555	GMW 3205	Odour test [NEW!]	Mar-23	
2010869	VDA 275 PV 3925	Formaldehyde emission	Mar-23	
2010843	VDA 277 PV 3341	Total carbon emission	Mar-23	
2010870	VDA 278	Thermal desorption analysis	Mar-23	
2010797	DIN 75201	Fogging/Method A	Mar-23	
2010557	GMW 3235	Fogging/Method A	Mar-23	
2010798	DIN 75201 PV 3015	Fogging/Method B	Mar-23	
2010559	GMW 3235	Fogging/Method B	Mar-23	

#### **Plastics - Infrared spectroscopy**

Art. No.	Standard	Proficiency testing type [A]	period	
2010818	not specified	Quantitative infrared spectroscopy (FTIR) e.g. VA content of EVA	Mar-23	

# From our catalogue of consumer goods we recommend the following proficiency tests:

2010210	not specified	Identification of plastic granulates	Mar-23	
2010167	not specified	Identification PA types (e.g. PA6, PA 11)	Mar-23	

### Plastics - water content | water absorption

Art. No.	Standard	Proficiency testing type [A]	period	
2010793	ISO 15512	Water content (Karl-Fischer)	Apr-23	
2010865	ISO 15512	Water content (Aquatrac®) - CaH2-method	Apr-23	
2010796	ISO 62	Water absorption	Apr-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

#### **Plastics - surfaces**

Art. No.	Standard	Proficiency testing type [A]	period	To view pricing information visit our online Portal:
2010722	ISO 2813	Gloss reading at 20°, 60°, 85°	Mar-23	Login or register
2010649	ASTM D523	Gloss reading at 20°, 60°, 85° [NEW!]	Mar-23	
2010821	ISO 7724 DIN 53236-A	Colour measurement (8°/d) - ΔE, ΔL, Δa, Δb	Mar-23	
2010771	DIN 53236-B	Colour measurement (45°/0) - ΔE, ΔL, Δa, Δb	Mar-23	
2010822	PV 3952	Scratch resistance	Mar-23	
2010823	ISO 1518	Erichsen-Hardness pencil (in style of ISO 1518, hand-operated devices can also be used)	Mar-23	
2011049	ISO 22557	Scratch test using a spring-loaded pen [NEW!]	Mar-23	
2010871	ISO 19403-2	Surface energy (contact angle)	Mar-23	
2010893	ISO 9352	Abrasion by abrasive wheels (Taber)	Mar-23	
2010981	PV 3987	Micro scratch resistance high gloss	May-23	
2010699	PV 3974	Mar Resistance of Surfaces	Apr-23	
2010719	PV 3991	Skin abrasion test	Apr-23	
2010693	PV 3966	Stress Whitening Properties (Ball Drop Test)	Apr-23	
2010717	PV 3989	Ball Drop Test	Apr-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.

#### **Plastics - paintwork**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010972	ISO 2409	Cross cutting test	May-23	Login or register
2010539	PV 3964	Cream resistance	May-23	
2010849	DBL 5425	Multiple stone impact test	May-23	
2010221	ISO 20567-1	Multiple stone impact test	May-23	
2011042	SAE J400 (method C)	Chip Resistance [NEW!]	May-23	
2010845	DBL 5425	Steam jet test	May-23	
2010703	TL 211 (DIN 16925-C)	Pressure washer test	May-23	
2011045	IEC 60068-2-70	Abrasion caused by rubbing [NEW!]	May-23	
2010217	PV 1200	Environmental Cycle Test (8 cycles) (e.g. delamination, change to appearance)	May-23	
2010541	ISO 2808 (6A-Ver. 1)	Film thickness - Cross sectioning by grinding	May-23	
2010641	ISO 2808 (6A-Ver.2)	Film thickness - Cross sectioning by cutting [NEW!]	May-23	
2010543	DBL 5425 (A.1.17)	Wash scratch resistance (Amtec-Kistler)	May-23	
2010545	DBL 5425 (A.1.17)	Wipe scratch resistance (Crockmeter)	May-23	
2010721	PV 3.3.3	Scratch Resistance of Clear Coats	May-23	

### Assessing - Change in colour / Staining / Blistering:

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010026	ISO 105 A02 ISO 105 A03	Visual evaluation of colour charts (grey scale)	Apr-23	
2010919	ISO 105 A04 ISO 105 A05	Instrumental assessment of colour charts [NEW!]	Apr-23	
2010701	ISO 4628-2	Degree of blistering (quantity / size) on photos using the pictorial standards	Apr-23	
2011046	ISO 4628-3	Degree of rusting [NEW!]	Apr-23	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.

### Plastics - Light fastness / Exposure tests

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
	Evaluation: Co	olor change with grey scale and instrumentell		
2010799	ISO 105-B06	Light fastness <sup>[P]</sup>	Apr-23	Login or register
2010667	PV 1303	Xenon Arc Light Aging [P]	Jan-23	
2010867	ISO 4892-2	Light fastness - Xenon Arc light (cycle 1) [P]	Apr-23	
2010866	ASTM G155	Light fastness - Xenon Arc light (cycle 1) [P]	Apr-23	
2010868	ISO 4892-3 ASTM G154	Exposure to laboratory light - Fluorescent UV lamps <sup>[P]</sup>	Apr-23	
2010215	PV 1306	Tackiness of Polypropylene Parts [NEW!]	Apr-23	
2010128	PV 3929	Weathering (Dry, Hot) - Kalahari test <sup>[P]</sup>	Apr-23	
2010130	PV 3930	Weathering (Humid, Hot) - Florida test <sup>[P]</sup>	Apr-23	
2010846	DIN 75220 D-IN1-T VDA 230-219	Sunlight simulation <sup>[P]</sup>	Apr-23	
	Evaluation: Ch	nange of mechanical properties		
2010016	ISO 4892-2	Light fastness - Xenon Arc light (cycle 1)	Apr-23	

[P] = return of the tested samples is required

### **Plastics - electroplating:**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010239	ISO 1456	Coating thickness (Cu / Ni / Cr) Microscopical method (ISO 1463) and Coulometric method (ISO 2177) possible	May-23
2010241	EN 16866 ASTM B764	Individual coating thicknesses (nickel), potential differences between nickel layers	May-23
2010243	DIN 53100	Number of micropores / microcracks in chromium coating	May-23
2010219	DBL 8465	Corrosion testing CASS (48 h) including evaluation of the samples	May-23
2010661	PV 1058	Micro-crack pattern	May-23
2010663	PV 1063	Micropore Density	May-23
2010665	PV 1065	Potential Differences and Layer Thicknesses of Nickel	Sep-23

#### **Proficiency tests - Metals**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.

### Metals / wheels - corrosion testing:

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
	Reference spe	ecimens and painted plates		<u>Login or register</u>
2010820	ISO 9227 point 5.2.2	Corrosion testing NSS: reference specimen 48h / painted plate 480h (e.g. delamination, corrosion, blistering)	Apr-23	
2010018	ISO 9227 point 5.2.4	Corrosion testing CASS: reference specimen 24h / painted plate 240h (e.g. delamination, corrosion, blistering)	Apr-23	
	Reference spe	ecimen (mass loss)		
2010561	ISO 9227 point 5.2.3	Corrosion testing AASS	Apr-23	
2010020	ASTM B117	Salt Spray test	Apr-23	
2010022	GMW 14872	Exterior Cyclic Corrosion	Apr-23	
	Steel substrate	es		
2010520	DBL 7381.20	Corrosion cycle test (CCT 1 steel) (e.g. corrosion, cross cut, scratch test)	May-23	
2011043	PV 1210	Corrosion Test [NEW!]	May-23	
2011044	ISO 11997-1 (Zyklus A)	Corrosions testing - Resistance to cyclic corrosion conditions [NEW!]	May-23	
2011047	DIN 50018	Saturated atmosphere in the presence of SO2 (Kesternich test) [NEW!]	May-23	
	Aluminium wheels			
2010850	DBL 7381.50	Aluminium corrosion (Filiform and CASS)	May-23	

#### **Metals - paintwork**

Art. No.	Standard	Proficiency testing type [A]	period	
2010024	ISO 6270	Condensation atmosphere (CH) Resistance to humidity	Mar-23	
2010295	ISO 2360	Coating thickness Amplitude-sensitive eddy-current method	May-23	
2010615	ISO 2178	Coating thickness - Magnetic method	May-23	

### Metals - X-ray fluorescence analysis (XRF)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010171	not specified	Determination of elements by XRF, e.g. nickel, copper, zinc, lead	Jul-23	
2010371	ISO 3497	Coating thickness X-ray spectrometric method	Mar-23	

### **Proficiency tests - Rubber and TPE**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

#### **Rubber and TPE**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010727	ISO 2781	Density of rubber	May-23	Login or register
2010728	ISO 37	Tensile test (specimen type2/S2)	May-23	
2010729	ISO 37	Tensile test (specimen type3/S3A)	May-23	
2011033	VDI 2019	Adhesion of thermoplastic elastomers (TPE) on substrates [NEW!]	May-23	
2010894	ASTM D412	Tensile test	May-23	
2010897	ISO 34-1	Tear strength - Trouser test piece	May-23	
2010761	ISO 34-1	Tear strength - Angle test piece (without nick)	May-23	
2010760	ISO 34-1	Tear strength - Angle test piece (with nick)	May-23	
2010895	ISO 815	Compression set	May-23	
2010900	ISO 815-2	Compression set at lower temperature	May-23	
2010896	ISO 2285	Tension set	May-23	
2010731	ISO 868 ISO 48-4	Hardness Shore A	May-23	
2010898	ASTM D2240	Hardness Shore A	May-23	
2010748	ISO 48-2	IRHD-Hardness - method M	May-23	
2010899	ISO 48-2	IRHD-Hardness - method N	May-23	
2010267	ISO 48-4	Hardness Shore D	May-23	
2010762	ISO 4662	Rebound resilience	May-23	
2010763	ISO 4649	Abrasion resistance	May-23	
2010746	ISO 11357-2	Glass transition of rubber	May-23	
2010875	ISO 1407	Solvent extract of rubber	May-23	
2010764	ISO 289-1	Mooney viscosity	May-23	
2010749	ISO 1817	Increase in mass (liquid B)	May-23	
2010750	ISO 11358	Thermogravimetry (TGA) - black carbon content	May-23	

### **Proficiency tests - Rubber and TPE**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

#### **Rubber and TPE**

Art. No.	Standard	Proficiency testing type [A]	period	To view pricing information visit our online Portal:
2010269	ISO 1431-1	Resistance to ozone cracking	May-23	Login or register
2010508	ISO 188	Accelerated ageing / heat resistance	May-23	
2010671	PV 3305, PV 3316	Ozone Resistance - Permanent Deformation	Sep-23	
2010673	PV 3307	Plastic and Elastic Deformability	May-23	
2010675	PV 3330	O-Rings - Compression Set	May-23	
2010697	PV 3973	O-Rings - Tensile test	May-23	
2010677	PV 3366	Seals - Wear Characteristics of Flocking	May-23	
2010715	PV 3988 (4.1)	Seals - Anti-Friction Coating - Coating thickness	Sep-23	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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### Proficiency tests - Films | pipes

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

#### **Plastic films**

Art. No.	Standard	Proficiency testing type [A]	period	To view pricing information visit our online Portal:
2010777	ISO 527-1/-3	Tensile Test	Mar-23	Login or register
2010970	ISO 7765-1	Impact resistance – free-falling dart	Mar-23	
2010878	ISO 6383-1	Tear resistance - trouser tear method	Mar-23	
2010838	ISO 6383-2 ASTM D1922	Tear resistance - Elmendorf method	Mar-23	
2010779	ISO 4593	Film thickness	Mar-23	
2010780	ISO 8295	Coefficients of friction (static/kinetic)	Mar-23	
2010879	ISO 11339	T-peel test	Mar-23	Migration testing:  Proficiency Tests in the field of overall and specific migration
2010880	DIN 55529	Sealed-seam strength	Mar-23	
2010847	ISO 15106-3	Water vapour transmission rate	Mar-23	
2010844	ISO 15105-2	Gas transmission rate	Mar-23	can be found in the catalogue
2010518	DIN 53380-3	Gas transmission rate [NEW!]	Mar-23	"consumer goods" or the online catalogue
2010781	ISO 14782	Transparency/Haze	Mar-23	
2010012	DIN 55543-5	Adhesion strength	Mar-23	
2011051	VDA 230-217	Plastic Roll Goods - Low Temperature Resistance [NEW!]	Mar-23	
2010312	not specified	Identification of multi layer films	Mar-23	
2010115	not specified	Identification of mono layer films	Sep-23	

#### Plastic pipes / pipe materials (PE)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010792	ISO 1167-1/-2	Resistance to internal pressure	Mar-23
2010890	ISO 17454	Adhesion of multilayer pipes	Mar-23
2010891	ISO 9969	Thermoplastics pipes - ring stiffness	Mar-23
2010980	not specified	Wall thickness of plastic pipes	Mar-23
2010987	ISO 13477	Resistance to rapid crack propagation (S4 test) - method "Critical Pressure"	Mar-23
2010004	ISO 16770	Full-notch creep test [FNCT]	Apr-23
2010118	ISO 18488	Strain Hardening Modulus	Apr-23
2010120	ISO 18489	Crack growth - cracked round bar	Apr-23
2010529	ISO 10147	Degree of crosslinking of PE-X [NEW!]	Apr-23

### **Proficiency tests - Foams**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

### Foams (ISO / DBL / ASTM)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010848	ISO 845	Apparent density	Apr-23	Login or register
2010829	ISO 1798	Tensile test	Apr-23	
2010034	ISO 8067	Tear strength (method B)	Apr-23	
2010730	ISO 1856	Compression set	Apr-23	
2010036	ISO 3385	Fatigue constant-load pounding	Apr-23	
2010831	ISO 3386-1 DBL 5452	Compression stress value CV40	Apr-23	
2010038	ISO 2439	Hardness (indentation)	Apr-23	
2010874	DBL 5307 FMVSS 302	Burning rate	Apr-23	
2010040	ASTM D3574 Test B1	Indentation Force Deflection Test	Apr-23	
2010042	ASTM D3574 Test C	Compression Force	Apr-23	
2010044	ASTM D3574 Test D	Compression Set	Apr-23	
2010046	ASTM D3574 Test E	Tensile Test	Apr-23	
2010048	ASTM D3574 Test F	Tear Resistance	Apr-23	
2010050	ASTM D3574 Test I3	Fatigue - Constant Force Pounding	Apr-23	
2010052	ASTM D3574 Test J	Steam Autoclave Aging	Apr-23	
2010054	ASTM D3574 Test K	Dry Heat Aging	Apr-23	
2010152	ASTM D3574 Test L	Wet Heat Aging	Apr-23	
2010412	ASTM D3574 Test N	Hysteresis Loss	Apr-23	
2010687	PV 3937	Amine Emissions	Apr-23	

### Proficiency tests - Paper | Board

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

#### Paper | Board [NEW!]

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010058	EN 310 / DBL 5472	Board - Modulus in bending and bending strength	Apr-23	Login or register
2011024	ISO 2528	Sheet materials - Water vapour transmission rate	Oct-23	
2011025	ISO 535	Paper and board - Water absorptiveness (Cobb)	Oct-23	
2011026	ISO 5636-3	Paper and board - Air permeance (Bendtsen)	Oct-23	
2011027	ISO 5636-5	Paper and board - Air permeance (Gurley)	Oct-23	
2011028	ISO 536	Paper and board - Grammage	Oct-23	
2011029	ISO 534	Paper and board - Thickness, density, specific volume	Oct-23	
2011030	ISO 12625-3	Tissue products - Thickness	Oct-23	
2011031	ISO 12625-8	Tissue products - Water-absorption capacity	Oct-23	
2011032	ISO 12625-6	Tissue products - Grammage	Oct-23	

### **Proficiency tests - Composites**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.

#### **Composites - Fibre-reinforced plastics**

Art. No.	Standard	Proficiency testing type [A]	period	To view pricing information visit our online Portal:
2010971	EN 59 ASTM D2583	Barcol hardness	May-23	Login or register
2010060	EN 2564	Fibre-, resin- and void contents	May-23	
2010726	ISO 14125	Flexural properties	May-23	
2010724	ISO 14126	Compressive properties	May-23	
2010725	ISO 14129	45° tension test method	May-23	
2010772	ISO 14130	Apparent interlaminar shear strength	May-23	
2010723	ISO 527-1/-4	Tensile test (isotropy, anisotropy)	May-23	
2010768	ISO 527-1/-5	Tensile test (unidirectional)	May-23	
2010522	ASTM D5379	Shear Properties (V-Notched Beam) [NEW!]	May-23	
2011048	ASTM D7078	Rail Shear Method [NEW!]	May-23	
2010524	ISO 13003	Fatigue properties under cyclic loading conditions [NEW!]	May-23	
2010062	ISO 2555	Apparent viscosity	May-23	
2010068	ISO 3219	Viscosity rotational viscometer	May-23	

# GRP pipes / cured-in-place pipes (CIPP) - Fibre-reinforced plastics

Art. No.	Standard	Proficiency testing type [A]	period
2010533	ASTM D638	Tensile test [NEW!]	May-23
2010535	ASTM D790	Flexural test [NEW!]	May-23
2010537	ISO 11296-4 annex B	Short-term flexural properties [NEW!] (ASTM F2019 appendix X2)	May-23

### **Proficiency tests - Geosynthetics**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

**Geosynthetics (geomembrane)** 

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010901	ISO 527-1/-3	Tensile test geosynthetics	Mar-23	Login or register
2010902	ASTM D6693	Tensile Properties of PE/PP Geomembranes	Mar-23	
2010903	ASTM D1004	Tear Resistance (Graves Tear)	Mar-23	
2010904	ISO 12236	Static puncture Test (CBR-Test)	Mar-23	
2010912	DIN EN 14576	Stress Crack Resistance	Mar-23	
2010913	ASTM D5397	Stress Crack Resistance	Mar-23	
2010906	ISO 9863-1	Thickness at specified pressures (20 kPa)	Mar-23	
2010909	EN 1107-2	Dimensional stability	Mar-23	
2010759	ISO 11358	Carbon black content (TGA)	Mar-23	
2010876	ASTM D4218	Carbon black content (muffle-furnace)	Mar-23	
2010877	ASTM D5596	Dispersion of Carbon Black	Mar-23	

In cooperation with:

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.



### **Textiles - Fabric properties**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010733	EN 12127 ISO 3801	Mass per unit area: natural or synthetic fibre materials both climats 23/50 or 20/65 possible	May-23	Login or register
2010983	freely selectable	Construction of fabric - woven and knitted fabric: number of threads / wales / course	May-23	
2010732	ISO 9073-2	Thickness of nonwovens	May-23	
2010070	ISO 9073-4	Tear resistance nonwovens	May-23	
2010635	ISO 9073-3	Tensile properties of nonwovens	May-23	
2010734	ISO 13934-1	Tensile properties - strip method	May-23	
2010837	ISO 13934-2	Tensile properties - grab method	May-23	
2010778	ISO 13937-1	Tear properties - Elmendorf method	May-23	
2010800	ISO 13937-2	Tear properties - trouser shaped specimen	May-23	
2010801	ISO 13937-3	Tear properties - wing shaped specimen	May-23	
2010802	ISO 12947-2	Abrasion resistance - Martindale	May-23	
2010637	ISO 12947-3	Abrasion resistance Martindale (mass loss)	May-23	
2010803	ISO 12945-1	Pilling properties - Pilling box	May-23	
2010804	ISO 12945-2	Pilling properties - Martindale	May-23	
2010707	ICI TM 444 JIS L 1058	ICI Snagging resistance	May-23	
2010841	ISO 13936-1	Slippage resistance of yarns - Fixed seam opening	May-23	
2011103	ISO 13936-2	Slippage resistance of yarns - Fixed load	May-23	
2010072	ISO 13935-1	Maximum force seam (strip method)	May-23	
2010842	ISO 13938-2	Bursting strength and bursting distension	May-23	
2010751	ISO 3071	PH value of textiles	May-23	
2010973	DIN 54278-1	Determination of materials soluble in organic solvents	May-23	
2010836	ISO 11357-3	DSC-Analysis: Temp. and enthalpy of melting (woven goods)	May-23	
2011000	AATCC 197	Vertical Wicking of Textiles	May-23	

In cooperation with:

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.



#### **Textiles - Automotive testing**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010669	PV 2034	Floating Roller Peel Test	Jan-23	Login or register
2010679	PV 3906	Abrasion Behavior	May-23	
2010681	PV 3908	Wear Resistance	May-23	
2010683	PV 3909	Static and Permanent Elongation	May-23	
2010685	PV 3922	Oil- and Water-Repellent Behavior	May-23	
2010689	PV 3955	Trim Cover Material - Seam Slippage Resistance	Jan-23	
2010691	PV 3961	Trim Cover Material - Hook Fastener Test	Jan-23	

#### **Textiles - Determination of fibre blends**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010974	not specified	Qualitative determination of a fibre blend	May-23
2011001	ISO 17751-1,-2	Quantitative analysis of cashmere, wool, other specialty animal fibers	May-23
2010737	ISO 1833-11	Quantitative determination of a fibre blend (PESCO)	May-23
2010776	ISO 1833-12	Quantitative determination of a fibre blend (Acrylic fibres)	May-23
2010738	ISO 1833-4	Quantitative determination of a fibre blend (Protein fibres)	May-23
2010739	ISO 1833-6	Quantitative determination of a fibre blend (Viscose fibres)	May-23
2010740	ISO 1833-7	Quantitative determination of a fibre blend (Polyamide fibres)	May-23

In cooperation with:

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.



### **Textiles - Functional properties**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010805	Diffuse / 8°- geometry	Colour measurement - ΔE, ΔL, Δa, Δb	May-23	Login or register
2010806	acc. to Ganz	Whiteness measurement	May-23	
2010839	ISO 811	Hydrostatic pressure test	May-23	
2010830	ISO 9073-12	Demand absorbency	May-23	
2010997	AATCC 79	Absorbancy of Textiles	May-23	
2010840	ISO 5077   ISO 6330	Dimensional change in washing (drying method F)	May-23	
2010807	ISO 15797	Industrial washing and colour change (method 2 peracetic acid bleach)	May-23	
2010832	ISO 9237	Permeability of fabrics to air	May-23	
2010808	DIN 75200/ FMVSS 302	Burning rate of textiles	May-23	
2010995	ISO 11092	Thermal and water vapour resistance	May-23	
2010237	ASTM E96 (BW)	Water Vapor Transmission (WVT)	May-23	
2010074	ISO 4920 / AATCC 22	Spray test - surface wetting	May-23	
2010319	EN 29865	Bundesmann Rain-shower test	May-23	
2010092	ISO 14419	Oil repellency	May-23	
2010514	EN 13758-1	Solar UV protective properties	May-23	

### Individual fibres

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010975	ISO 1973	Linear density (4,4dtex to 15dtex)	May-23	
2010976	ISO 5079	Breaking force and elongation at break (4,4dtex to 15dtex)	May-23	

In cooperation with:

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.



#### **Textiles - Colour fastness**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010809	ISO 105-B02	Colour fastness to light - Xenon arc	Oct-23	Login or register
2010810	ISO 105-B04	Colour fastness to light - Xenon arc	Oct-23	
2010510	ISO 105-B07	Colour fastness to light - artificial perspiration	Oct-23	
2010833	ISO 105-C06/C2S	Colour fastness to washing 60°	Oct-23	
2010735	ISO 105-X12	Colour fastness to rubbing - Crockmeter	Oct-23	
2010834	ISO 105-C08	Colour Fastness to washing	Oct-23	
2010629	ISO 105-C10	Colour fastness to washing with soap or soap and soda	Oct-23	
2010835	ISO 105-D01	Colour Fastness to dry cleaning	Oct-23	
2010512	ISO 105-D02	Colour fastness to rubbing - organic solvents	Oct-23	
2010752	ISO 105-E01	Colour Fastness to water	Oct-23	
2010223	ISO 105-E02	Colour Fastness to sea water	Oct-23	
2010229	ISO 105-E03	Colour Fastness to chlorinated water	Oct-23	
2010736	ISO 105-E04	Colour Fastness to perspiration	Oct-23	
2010992	ISO 105-E06	Colour fastness to spotting: Alkali	Oct-23	
2010633	ISO 105-N01	Colour fastness to bleaching; hypochlorite [NEW!]	Oct-23	
2010917	ISO 105-N02	Colour fastness to bleaching; peroxide [NEW!]	Oct-23	
2010993	ISO 105-P01	Colour fastness by dry heat	Oct-23	
2010231	ISO 105-X05	Colour fastness to organic solvents	Oct-23	
2010235	ISO 105-X11	Colour fastness to hot pressing	Oct-23	

### **Proficiency tests - Leather**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.

#### Leather

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010770	DBL 5307 FMVSS 302	Leather - burning rate	Apr-23	Login or register
2011038	ISO 105-B02	Colour fastness to light - Xenon arc [NEW!]	Apr-23	
2010028	ISO 3376	Tensile test (strenght, extension)	Apr-23	
2010030	ISO 3377-1	Tear load - single edge tear	Apr-23	
2010032	ISO 3377-2	Tear load - double edge tear	Apr-23	
2010066	ISO 2589	Thickness	Apr-23	
2010713	ISO 11640	Colour fastness to cycles of rubbing	Apr-23	
2010709	ISO 17186	Surface coating thickness	Apr-23	
2010516	VDA 270	Odour test (variant D4 and D5)	Apr-23	
2010645	ISO 4045	pH value and difference figure	Apr-23	
2010643	ISO 11641	Colour fastness to perspiration	Apr-23	
2010647	ISO 11642	Colour fastness to water	Apr-23	
2010695	PV 3968	Soiling Behavior	Apr-23	

Proficiency Tests for chemical leather testing can be found in the catalogue "consumer goods" or the online catalogue: e.g. metal content, preservatives, formaldehyde, chlorophenols, volatile substances, organotin compounds

## **Proficiency tests - Textiles**

In cooperation with:

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.



### **Coated fabrics**

Art. No.	Standard	Proficiency testing type [A] pe		To view pricing information visit our online Portal:
2010990	ISO 32100	Flex resistance (flexometer method)	May-23	Login or register
2010991	ISO 1421	Tensile strength and elongation at break	May-23	
2011050	ISO 2411	Coating adhesion [NEW!]	May-23	
2010631	ISO 4674-1	Tear resistance (method B)	May-23	
2010150	ISO 2286-3	Thickness	May-23	
2010086	ISO 7854-A	Resistance to damage by flexing (De Mattia)	May-23	
2010088	ISO 7854-C	Resistance to damage by flexing (crumple/flex)	May-23	
2010090	ISO 5470-2	Abrasion resistance (Martindale)	May-23	

### **Outsoles**

Art. No.	Standard	Proficiency testing type	period	
2010705	ISO 17707	Flex resistance of outsoles	May-23	

## **Chemical textile testing:**

Further Proficiency Tests for chemical textile testing can be found in the catalogue "consumer goods" or the online catalogue: e.g. heavy metals, formaldehyde, flame retardants, azo dyes, pesticides, chlorophenols, phthalates, PAH, organotin compounds

## Microbiology textile

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010076	AATCC 100	Antimicrobial Fabric Test	May-23
2010078	AATCC 147	Antibacterial Parallel Streak	May-23
2010080	ISO 20743 / AATCC 90	Antibacterial Activity	May-23
2010082	EN 16615	4-field test / microbial reduction textile	May-23

[A] = For accredited and non-accredited status please see Online portal (ODIN)

# **Proficiency tests - Personal** protective equipment (PPE)

In cooperation with:

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.



## **Protective clothing (general)**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010094	EN 863	Puncture resistance	May-23	Login or register
2010096	EN 1149-1	Surface resistivity	May-23	
2010098	EN 1149-2	Vertical resistance	May-23	
2010100	EN 1149-3	Charge decay	May-23	
2010102	ISO 15025	Limited flame spread	May-23	
2010104	ISO 9185	Resistance to molten metal splash	May-23	
2010639	EN 388	Protective gloves - mechanical risks	May-23	
2011036	ISO 13997	Protective gloves - resistance to cutting [NEW!]	May-23	
2011037	EN 455-2	Medical gloves - Dimensions [NEW!]	May-23	

Filtering half masks

Art. No.	Standard	Proficiency testing type [A]	period	
2010551	EN 149+A1	Particle filter penetration (EN 13274-7)	May-23	
2010321	EN 14683	Face masks - bacterial filter efficiency / pressure difference	May-23	
2010621	EN 14683	Face masks - Splash Resistance (ISO 22609)	May-23	

## High visibility clothing (ISO 20471)

Art. No.	Standard	Proficiency testing type [A]	period	
2010106	ISO 20471 / 5.1	Color measurement (background material) [NEW!]	May-23	
2010108	ISO 20471 / 6.1	Retroreflection of (retroreflective material) [NEW!]	May-23	

## Microplastics from textile sources [NEW!]

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
12010625	ISO/DIS 4484-1 AATCC TM212	Material loss from fabrics during washing [NEW!]	May-23	

# Proficiency tests - Environmental testing / EMC

In cooperation with:

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.



**Environmental testing [NEW!]** 

Art. No.	Standard	Proficiency testing type [A]	period	To view pricing information visit our online Portal:
2010929	IEC 60068-2-6 IEC 60068-2-27 IEC 60068-2-64	Vibration / Shock	Mar-23	Login or register
2011034	IEC 60068-2-27	Shock	May-23	
2011035	IEC 60068-2-6 IEC 60068-2-64	Vibration (sinusoidal / broadband random)	Jun-23	

Electromagnetic compatibility (EMC) [NEW!]

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
	Block I - Radiated	d Emission:		
2011064	ABD0100.1.2 (section 3.4.5)	Emission of Radio Frequency Energy	May-23	2 MHz - 6 GHz   Limit value / test level: gem. RTCA DO-160
2011065	RTCA DO-160 (section 21)	Emission of Radio Frequency Energy	May-23	2 MHz - 6 GHz   Limit value / test level: Cat L, M, H
2011066	MIL-STD461 (RE102)	Radiated Emissions – Electric Field	May-23	10 kHz - 18 GHz   Limit value / test level: all
2011067	AECTP 500 (NRE02)	Radiated Emissions - Electric Field	May-23	10 kHz - 18 GHz   Limit value / test level: all
2011068	VG95373-12 (SA04G)	Measurement of radiated emissions	May-23	30 MHz - 18 GHz   Limit value / test level: GK1 to GK4
2011069	DNV-CG-0339 (section 14.11)	Radiated emission	May-23	30 MHz - 6 GHz   Limit value / test level: EMC A and B
2011070	IACS E10 (No. 19)	Electromagnetic field (E-Field)	May-23	30 MHz - 6 GHz   Limit value / test level: all
2011071	Lloyd's Register No. 1 (sec. 29)	Radiated emission (E-Field)	May-23	30 MHz - 6 GHz   Limit value / test level: all
2011072	CISPR 25	Radiated emissions assemblies - Anechoic chamber	May-23	150 kHz - 2.5 GHz   Limit value / test level: Class 1-5
2011073	UN ECE R10 (6.5)	Broadband electromagnetic interference (ESA)	May-23	Frequency range: 30 MHz - 1 GHz
2011074	UN ECE R10 (6.6)	Narrowband electromagnetic interference (ESA)	May-23	Frequency range: 30 MHz - 1 GHz
2011075	EMV06 (Annex E)	Radio compatibility - Measurement on devices	May-23	0,3 m and 0,7 m   Antenna distance 3 m or 10 m

# Proficiency tests - Environmental testing / EMC

In cooperation with:

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Electromagnetic compatibility (EMC) [NEW!]

Art. No.	Standard	Proficiency testing type [A]	period	To view pricing information visit our online Portal:
	Block II - Radiate	d Susceptibility:		Login or register
2011076	ABD0100.1.2 (section 3.3.3)	Radio Frequency Susceptibility (Radiated)	May-23	100 MHz - 8 GHz   Limit value / test level: up to 300 V/m
2011077	RTCA DO-160 (section 20)	Radio Frequency Susceptibility (Radiated)	May-23	100 MHz - 18 GHz   test level: Cat R, S, T bis 150 V/m, W
2011078	MIL-STD461 (RS103)	Radiated susceptibility - electric field	May-23	2 MHz - 40 GHz   Limit value / test level: all
2011079	AECTP 500 (NRS02)	Radiated susceptibility - electric field	May-23	2 MHz - 40 GHz   Limit value / test level: all
2011080	VG95373-12 (SF03G)	Immunity to radiated disturbances	May-23	30 MHz - 18 GHz   Limit value / test level: GK2 to GK4
2011081	DNV-CG-0339 (section 14.8)	Radiated electromagnetic field immunity	May-23	80 MHz - 6 GHz   Limit value / test level: 10 V/m
2011082	IACS E10 (No. 14)	Immunity to Radiated Radio Frequency Fields	May-23	80 MHz - 6 GHz   Limit value / test level: 10 V/m
2011083	Lloyd's Register No. 1 (sec 24)	Immunity to Radiated Radio Frequency Fields	May-23	80 MHz - 6 GHz   Limit value / test level: 10 V/m
2011084	ISO 11452-2	Electrical disturbances - Absorber-lined shielded enclosure	May-23	200 MHz - 18 GHz   Limit value / test level: 100 V/m
2011085	UN ECE R10 (6.8)	Immunity (ESA) - electromagnetic radiation - free field	May-23	20 MHz - 2000 MHz   Limit value / test level: 30 V/m

[A] = For accredited and non-accredited status please see Online portal (ODIN)

# Proficiency tests - Environmental testing / EMC

In cooperation with:

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.



## Electromagnetic compatibility (EMC) [NEW!]

Art. No.	Standard	Proficiency testing type [A]	period	To view pricing information visit our online Portal:
	Block III - Radia	ated Emission / Radiated Susceptibility:		Login or register
2011054	CISPR 16-2-1 EN 55016-2-1	Conducted disturbance	Sep-23	
2010931	CISPR 16-2-3 EN 55016-2-3	Radiated disturbance	Sep-23	
2011055	IEC 61000-4-2	Electrostatic discharge immunity	Sep-23	
2010933	IEC 61000-4-3	Radiated, radio-frequency, electromagnetic field immunity	Sep-23	
2011057	IEC 61000-4-4	Electrical fast transient immunity	Sep-23	
2011058	IEC 61000-4-5	Surge immunity	Sep-23	
2011059	IEC 61000-4-6	Immunity to conducted disturbances (radio-frequency fields)	Sep-23	
2011060	IEC 61000-4-8	Power frequency magnetic field immunity	Sep-23	
2011061	IEC 61000-4-9	Impulse magnetic field immunity	Sep-23	
2011062	IEC 61000-4-10	Damped oscillatory magnetic field immunity	Sep-23	
2011063	IEC 61000-4-11	Voltage dips, short interruptions, voltage variations immunity	Sep-23	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

## **Proficiency tests - Building materials**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.

## Hardened concrete

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010288	EN 12390-3 EN 12390-7	Density / Compressive strength	Dec-23	Login or register
2010290	EN 12390-5	Flexural strength (2-point load application)	Dec-23	
2010589	EN 12390-6	Tensile splitting strength	Dec-23	
2010591	EN 12390-8	Depth of penetration of water under pressure	Dec-23	
2010274	EN 12390-9	Freeze thaw resistance-scaling (plate method)	Dec-23	
2010205	EN 14629	Chloride content	Dec-23	
2010270	EN 450-1	Fly ash - Mass percentage of reactive CaO	Dec-23	

## Fresh concrete

[sample preparation by the participant]

Art. No.	Standard	Proficiency testing type [A]	period	
2010593	EN 12350-4,-5,-6,-7	Degree of compactability, flow table test, density and air content - pressure methods [NEW!]	Dec-23	

## Cement

Art. No.	Standard	Proficiency testing type [A]	period
2010284	EN 196-1	Determination of strength	Nov-23
2010266	EN 196-2	Chloride content	Nov-23
2010268	EN 196-2	Loss of ignition	Nov-23
2010569	EN 196-2	Total sulphate content	Nov-23
2010595	EN 196-3	Setting times / soundness	Nov-23
2010597	EN 196-6	Fineness	Nov-23
2011039	EN 12467	Fibre-cement flat sheets - density and bending [NEW!]	Nov-23

## **Proficiency tests - Building materials**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 42 of this catalogue.

## **Mortar for masonry**

[sample preparation by the participant]

Art. No.	Standard	Proficiency testing type [A]	period	To view pricing information visit our online Portal:
2010599	EN 1015-1	Particle size distribution (by sieve analysis)	Dec-23	Login or register
2010601	EN 1015-3, -6, -7	Consistence, bulk density and air content of fresh mortar	Dec-23	
2010276	EN 1015-10	Dry bulk density	Dec-23	
2010298	EN 1015-11	Flexural and compressive strength	Dec-23	
2010300	EN 1015-12	Adhesive strength of hardened mortars	Dec-23	

## **Screed mortar**

[sample preparation by the participant]

Art. No.	Standard	Proficiency testing type [A]	period	
2010302	EN 13892-2	Flexural and compressive strength	Dec-23	

## Masonry units [NEW!]

Art. No.	Standard	Proficiency testing type [A]	period	
2010603	EN 772-1	Compressive strength	Nov-23	
2010605	EN 772-21	Water absorption by cold water absorption	Nov-23	

## Mineral building materials

Art. No.	Standard	Proficiency testing type	period	
2010571	ISO 12570	Moisture content - drying at elevated temperature	Dec-23	
2010573	ISO 12571	Hygroscopic sorption properties	Dec-23	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

## **Proficiency tests - Building materials**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 42 of this catalogue.

## **Aggregates**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010611	EN 933-1	Particle size distribution - Sieving method	NOV-23	
2010613	EN 933-4	Particle shape - Shape index	Nov-23	
2010575	EN 1097-3	Loose bulk density and voids	Nov-23	
2010577	EN 1097-5	Water content by drying in a ventilated oven	Nov-23	
2010579	EN 1097-6	Particle density and water absorption	Nov-23	
2010581	EN 1744-1 (cl. 7)	Water-soluble chloride salts - Volhard method	Nov-23	
2010583	EN 1744-1 (cl. 11)	Total sulfur content	Nov-23	
2010585	EN 1744-1 (cl. 12)	Acid soluble sulfates	Nov-23	

## Thermal insulating material

Art. No.	Standard	Proficiency testing type [A]	period	
2010587	EN 1602	Apparent density	Dec-23	
2010607	EN 1607	Tensile strength perpendicular to faces	Dec-23	
2011040	EN 12089	Bending behaviour [NEW!]	Dec-23	
2011041	EN 823	Thickness [NEW!]	Dec-23	
2010609	EN 826	Compression behaviour	Dec-23	
2010286	EN 29052-1	Acoustics determination of dynamic stiffness	Dec-23	
2010280	EN 12667	Heat transfer	Dec-23	

## Other building material

Art. No.	Standard	Proficiency testing type [A]	period	
2010282	EN ISO 15148	Water absorption coefficient by partial immersion	Nov-23	

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## **Registration form - Proficiency test**



Article No. / proficiency testing type	period	result release and report online (ODIN)	result release by e- mail / fax; report by e-mail	additional sample sets

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds are free of charge. As a participant, you benefit from our international recognized proficiency testing schemes. By submitting up to ten result sheets you are now enabled to run international comparisions to check different methods and different lab technicians with one proficiency testing round. Your benefit: Participating in DRRR-proficiency testing services save costs for your quality assurance! If you need additional sample sets, you have the opportunity to order it according to our latest product catalogue.

Please note, that the free of charge service is only valid for returning result sheets by ODIN. If you send us your results by mail, fax or postal delivery, the additional result sheet will be charged according the latest product catalogue as a sample set equivalent.

In very rare individual cases an accredited proficiency testing round will not be carried out within the scope of accreditation due to technical or organizational reasons. In these rare cases the DRRR will inform the participants before the start of the proficiency testing round, thus before the sample shipment. An immediately free cancellation for the participants is possible until the date of the sample shipment.

Your registration is an one-time order. It is only valid for one year. Cancelation fees apply when cancelling a registration. If you want to have a permanent-registration please tick the box on the right side.

Please send registration to: fax-no. +49 (0)8 31/960 878-99 e-mail: info@DRRR.de online via www.odin.drrr.de

- o this registration is permanent-registration and valid until my cancelation
- An offer with the total costs is needed
- A Purchase order from the purchasing department will follow

	O A i dichase order	nom the parchasing department will follow	
DRRR-customer number			
company			
company (additional line)			
contact person			
street			
post-code /city			
country (if not Germany)			
fon			
fax			
e-mail			
VAT-ID-No. (if available)			
With your signature you agree			
with our general terms and conditions.	date	signature	

## Reference material - Material testing

### **Importance**

Reference material is a substance or item with one or more defined (known) characteristics and sufficient homogeneity.

### **Description**

### Benefit certified reference material

These materials are suitable for the calibration of equipment, for the quality assurance of testing methods or to analyse derivate reference materials. DRRR-Reference materials are essential for the chemical, physical and mechanical testing as well as for the quality assurance. Standards for the accreditation of testing and calibration laboratories demand the using of reference materials.

The use of reference materials (RM) and certified reference materials (CRM) is an important procedure to avoid mistakes in the lab routine.

Profit with our high quality standards for your lab work

### **Characteristics**

- the reference value is developed by the total number of results of the participants of proficiency testing (consensus value)
- DRRR-Reference materials do always refer to a DRRR-Proficiency testing
- reliable reference values according to advanced statistical evaluation
- independent service without influence of societies organisations and federations

The opportunity to collaborate with the best laboratories for the different requirements assures the high quality of our materials.

Reference materials meet all requirements of the ISO Guides 31 and 35, but it does not exist any accreditation for reference material

### **Availability**

For all Proficiency testing schemes in this catalogue reference material is available. You can contact us for price information or for currently available reference materials.

Availability and order request

## quality management / assurance

We have collected wide experience in building up and operating process orientated quality management systems. Our experience is based on an intensive quality management qualification (DQG –EOQ quality manager). Feedback of our costumers gives us a wide overview about the various requirements that companies have to pass at audit situations.

As a qualified and examined auditor (DGQ-EOQ auditor quality, TGA) we are capable to estimate a company from different perspectives if quality management system is fit for audit and following we can show potentials for improvement.

We offer assistance for the following questions:

- building up process orientated quality management
- building up of a secure testing agent system
- assessment of quality systems in preparation for audits
- advice in operating effective quality management systems

With our expertise in interpreting ISO 9001 over IFS to DIN 17025 we serve companies of food economy and laboratories.

On the basis of our international activities we also have experience in building up and implementation of quality management systems in developing countries. We place our services at your disposal for international questions.

Please do not hesitate to contact us.

## seminars / training / consulting

### **IR-Seminar**

The IR-seminar explains how to analyze different kind of food by IR spectroscopy. Furthermore specific peculiarties for the IR calibartion of selected food will be discussed. The specific peculiarties of the calibration will be explained intensify. How to calibrate? When you have to update the calibration? What is the cause of measurement problems?

The seminar will be complemented by theoretical exercises on IR spectroscopy. In the practical excericise calibration data sets will be testes for suitability and critical data sets will be identifed.

### Sensory seminar

The importance of the sensory in the food stuff industry will be explained and clarified in practice. The current state of new tastes is presented. Furthermore the participant will be enabling to apply the sensory testing methods. The use of sensory methods will be explained and on the basis of various sensory materials implemented.

The sensory measurement uncertainty of each participant will be determined at a practical example.

### **User-Workshop**

Typical questions in the chemical and microbiological analysis of food, especially dairy products are presented and possible solutions will be demonstrated.

Furthermore efficient ways to increase the laboratory quality will be presented. The seminar is accompanied by the practical experience of users.

A lot of space for the exchanging of knowledge and experience is provided at the User-Workshop. Therefore some experts are available as contact persons.

### Statistics seminar for beginners

This seminar presents the Binomial-, Poissonand Normal distribution and the application of them. Problem cases and the classis misinterpretation due to a false outlier treatment by the application of the Normal distribution are shown. The seminar is complemented by practical exercises with the notebook.

### Statistics seminar for advanced learners

This seminar presents the Shapiro-Wilk-Test, qui²-adaptation test, Median and MAD (Median absolute deviation) and their application. Furthermore the participants will be informed about the robust standard deviation after Qmethod and the robust average after Hampel.

The seminar is complemented by practical exercises with the notebook.

## seminars / training / consulting

## Implementation of DIN EN ISO/IEC 17025 in food laboratories

The participants will learn all items to implement a successful internal audit. Furthermore typical errors of the implementation of the audit will be targeted and avoidance strategies are communicated. The reliable identification of the deviation in audits and their successful processing in the form of measures will be trained.

You will benefit of the extensive experience of the DRRR, because the DRRR go through the audit situation in a perspective of 360 ° as an auditor, as an audited person and as a neutral expert.

### Inhouse-Training

We consider lectures, training and seminars as in important duty. Not primary concerning commercial possibilities but by reason that the knowledge transfer is the most important item in every department of our society.

- Seminar and training (one-day) of handling and implementation of proficiency testing
- Seminar and training (one-day) of operating control charts
- Seminar and training of sensory (customised product sensory)

For special requirements we also offer customised training programmes.

For questions about contents and conditions do no hesitate to contact us.

## Sales terms and delivery conditions

### Terms of payment

Our prices are net prices (plus 19% value added tax). Customers from European countries can provide us with their EU-VAT-Identification number, then they will be exempt from German value added tax. Terms of payment: 8 days net, without deduction

Fees for specially required customs documents such as import permits or similar will be invoiced according to time and effort.

Our bank details:

Raiffeisenbank in Allgäuer Land / bank code 733 692 64 Account 102350 / IBAN DE 94733692640000102350 BIC code: GENO DEF1DTA Sales tax ID no. DE254613132 tax number 127/124/32207

### Terms of delivery

Shipping costs for reference materials and proficiency tests will be invoiced according to time and effort. All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the proficiency test can be reclaimed by the DRRR upon request. The DRRR shall bear the shipping costs for the return transport if the materials are reclaimed.

Proficiency tests or reference materials marked "frozen" are shipped with our ADR safety tested frozen packaging system. A packaging fee is charged for the polystyrene box including cooling accumulators and air bubble film as well as the protective outer packaging. Frozen materials are shipped by express service. With the delivery of reference materials, you will receive a quality certificate with the details of the respective reference values as well as associated uncertainties.

Terms of delivery (risk group 1, 2 and 3)

Proficiency tests or reference materials marked with "Risk Group 1" are not subject to any participation restrictions according to § 44 IfSG (Infektionsschutzgesetz).

For proficiency tests or reference materials marked with "risk group 2, or risk group 3\*\*", we need a permission from your laboratory according to § 44 IfSG (Infektionsschutzgesetz) or similar. Please enclose a copy of the permission with your registration or order.

Our general terms and conditions (Allgemeine Geschäftsbedingungen) are valid!

The German reference office for proficiency testing and reference materials GmbH (hereinafter referred to as DRRR) for freely agreed services, in particular testing, training and expert activities as well as reference materials.

### § 1 General terms and conditions

The client acknowledges the General Terms and Conditions and price lists valid at the time of placing the order. Deviating terms and conditions of individual clients cannot be accepted.

Collateral agreements, promises and other declarations by the employees of the DRRR are only binding if they are expressly confirmed in writing by the DRRR. This shall also apply to amendments to this clause. If individual regulations within this contract or its components are ineffective, this does not affect the validity of the remaining regulations. The contracting parties shall have a duty, acting in accordance with the principles of good faith, to replace any invalid provision by one which is valid and which produces the same economic outcome as that intended by the invalid provision and providing that such replacement does not result in any change to the content of the contract; the same shall also apply analogously to any matter which requires regulation but for which no provision is made in these Terms and Conditions.

### § 2 Execution of the order

The orders accepted by the DRRR shall be carried out or expert opinions shall be prepared in accordance with the recognized rules of technology and – unless otherwise agreed in writing – in the manner customary at the DRRR. No responsibility shall be assumed for the correctness of the safety programs or safety regulations on which the tests are based, unless expressly agreed otherwise in writing.

The scope of the DRRR's work shall be specified in writing when the order is placed. If the proper execution of the order results in changes or extensions to the specified scope of the order, such changes or extensions shall be agreed in writing prior to execution. If the Customer can no longer be reasonably expected to adhere to the contract with regard to the changes or extensions, the Customer shall in this case be entitled to withdraw from the contract. However, according to § 649 BGB, the client must pay the agreed remuneration or, in the absence of an agreement, an appropriate remuneration.

The contractual services of the DRRR are deemed to have been rendered upon preparation of the respective final reports or expert reports.

A seminar registration can be cancelled free of charge for up to 6 weeks, after which the customer will be invoiced for the costs of the participants depending on the time and effort involved.

The following cancellation conditions apply to the cancellation of a proficiency testing:

Consolation motification novice.	Permanent registration (D)
Cancelation notification period:	single (one-time) registration (E)
un to 2 months hafare the proficional testing	no costs (D)
up to 3 months before the proficiency testing	50,00 € (E)
2 months before the proficional testing start	50,00 € (D)
3 months before the proficiency testing start	half proficiency testing price (E)
sample shipment – deadline of the results	complete price of the proficiency testing and any further incurred costs (D & E)

### § 3 Deadlines

The order deadlines specified by the DRRR shall not be binding unless their binding nature has been expressly agreed in written form.

### § 4 Warranty and liability

The integrity of the sample material to a defined condition is only guaranteed until the first border crossing in the case of foreign shipments.

Safety note: When sending materials of risk group 2, the DRRR must receive a letter from the recipient stating that the recipient is authorized to handle hazardous materials (e.g. pathogenic germs).

The DRRR's warranty only covers the services expressly commissioned to it pursuant to Section 2.

No warranty is thereby assumed for the correctness and functioning of the relevant overall system, measuring instruments or materials to which the examined or tested samples belong; in particular, the DRRR bears no responsibility for packaging, material selection and construction of the examined systems, measuring instruments or assemblies, unless these issues are expressly the subject of the order.

Even in the latter case, the warranty obligation and legal responsibility of the manufacturer are neither limited nor assumed

The warranty obligation of the DRRR is limited to the rectification of an error or defect or, in the absence of a warranted characteristic, to the achievement of this characteristic within a reasonable period of time. If the rectification or creation of the characteristic fails, i.e. if it becomes impossible or unreasonable for the Customer or is refused or unduly delayed by the DRRR, the Customer shall be entitled to demand a reduction in the remuneration or rescission of the contract, at its discretion.

The DRRR shall not be liable for any work performed by the Customer in the event of incorrect proficiency tests or reference materials.

The DRRR only assumes liability for certain properties, in particular for the fact that the service is suitable for the purposes of the Customer, if a corresponding assurance of the properties in question has been given. Any liability for consequential damages from positive breach of contract due to warranted characteristics is excluded, unless the warranty was intended to protect against such consequential damages. Claims for damages of the client from §§ 463, 635 BGB due to the lack of assured characteristics remain unaffected.

If an error or defect that does not represent the absence of a warranted characteristic is due to a circumstance for which the DRRR is responsible, the DRRR shall only be liable for any damage incurred by the Customer as a result thereof per order up to a maximum amount that corresponds to the value of the order agreed in accordance with Section 2.

The materials may only be used for the corresponding scientific purpose by trained qualified personnel. The DRRR is in no case responsible and liable for used, unused or unusable samples.

The samples are intended for analytical purposes only. The DRRR assumes no liability if the samples are not used for the intended analytical purposes.

All materials are definitely not suitable for human consumption unless they are sensory materials. Oral ingestion of materials not intended for sensory purposes can be harmful to health.

In the case of sensory materials, it is the responsibility of the test persons themselves to check whether they can test the materials with regard to allergies. The ingredients of the sensory materials are declared.

All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the interlaboratory comparison can be reclaimed by the DRRR upon request. The DRRR will bear the shipping costs for the return transport, if the materials are reclaimed.

The analytical properties of the material can only be guaranteed if the transport, storage and use conditions specified by the DRRR are observed.

For frozen samples, the DRRR only guarantees that the samples will be treated in accordance with the material properties stated in the data sheet. For frozen samples delivered to countries outside the EU, we can only guarantee the sample properties up to the first customs clearance point at the respective EU border.

### § 5 Exclusion of further liability and claims

The risk (transport and remuneration risk) shall pass to the Customer as soon as the goods have left the DRRR, regardless of whether the goods are transported by the Customer's own or third-party means of transport. Claims for damages by the client are excluded. This does not apply to intent, gross negligence, breach of essential contractual obligations of the DRRR or the lack of properties guaranteed in writing.

All further claims of the client for direct and indirect damage – for whatever legal reason – in particular claims for damages due to positive breach of contract or from tort and for compensation for damage that did not occur on the object of the order itself are excluded. Irrespective of this, the client is obliged to take out the usual insurance against direct and indirect damage.

### § 6 Remuneration and payment terms

Unless otherwise stated, the prices are in euros and do not include value added tax. This will be invoiced separately at the currently applicable rate in accordance with the applicable tax regulations.

The goods remain the property of DRRR until they have been paid for in full by the customer.

The fees according to the DRRR's currently valid List of Services shall apply to the calculation of the services unless a fixed price or another basis of assessment has been expressly agreed in writing. In the absence of a valid specification of services, individual contractual arrangements shall be made in each case.

Advances on costs can be requested. Partial invoices can also be issued in accordance with the services rendered. Partial invoices need not be marked as such. The receipt of an invoice does not mean that the DRRR has fully invoiced the order.

The fees are due for payment immediately after invoicing, at the latest by the date printed on the invoice (8 days net, without deduction). Unless another arrangement has been made. If payment is made at a later date, default interest of 2% above EURIBOR will be charged on the outstanding invoice amount for the period between the due date and receipt of payment.

Objections to the invoices of the DRRR must be notified in writing within a preclusive period of 14 days after receipt of the invoice, stating reasons.

### § 7 Confidentiality and copyright

The DRRR reserves the copyrights to the expert opinions, test results, calculations, etc. prepared by it. The DRRR and its employees may not unauthorizedly disclose or exploit business and operating relationships that come to their knowledge in the course of their work.

The DRRR may take copies for its files of written documents that have been made available to the DRRR for inspection and that are of importance for the performance of the assignment.

If the proficiency test report and the laboratory code are sent by e-mail, no guarantee can be given that confidentiality will be ensured.

### § 8 Place of jurisdiction, place of performance, applicable law

The place of jurisdiction for the assertion of claims for both parties to the contract is Kempten, provided that the conditions according to § 38 of the German Code of Civil Procedure are met. This applies in particular to dunning proceedings.

The place of performance for all obligations arising from the contract is Kempten, the contractor's registered

The contractual relationship and all legal relationships are subject exclusively to the law of the Federal Republic of Germany applicable between domestic contracting parties, excluding the Uniform Law on the Sale of Goods and the United Nations Convention on Contracts for the International Sale of Goods.

### § 9 Guarantee of services and goods from cooperation partners

For reference materials sold on behalf of our cooperation partners, the following conditions apply with regard to liability and warranty:

The liability of our cooperation partners, their legal representatives and vicarious agents is limited to cases of intent, gross negligence, absence of a warranted characteristic and breach of an obligation, the non-compliance of which would endanger the purpose of the contract. The liability for proven damages due to grossly negligent conduct is limited to the amount of the contractual remuneration; no liability is assumed for consequential damages. Liability is limited to the use of the reference materials for the purposes described in the respective certificate

Our cooperation partners guarantee the application of scientific diligence as well as compliance with the recognized rules of technology.

Our cooperation partners are entitled to rectify any defects that occur. If the rectification of defects fails, the client is entitled to demand a reduction of the remuneration or cancellation of the contract at his discretion. Further warranty claims are excluded.

The warranty is limited to the stated expiration date of the reference materials.

This applies to: ieLab, TGZ AQS Baden-Württemberg



## **Medical devices**

chemical-physical

microbiological

# product catalogue 2023 / 2024



### In the fields:

- Sterilization residuals
- Extraction of metals
- Degradation products from ceramics
- Loss of mass in polymeric medical devices
- Sterilization of medical devices
- Identification of microorganisms
- Bacterial filter efficiency of medical face masks

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Deutsches Referenzbüro für Ringversuche und Referenzmaterialien GmbH (DRRR GmbH)

# Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

More than 500 PT's in 2021

### **Proficiency testing provider**

The DRRR offers laboratories from the processing industry as well as official and private laboratories all aspects of quality assurance from one single source. Our focus is on food, consumer goods, packaging, building materials, plastics (polymers) and textiles, as well as microbiological analysis in these categories.

### Accreditation ISO/IEC 17043:2010 (A2LA)

The DRRR is an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is only valid for the matrices/parameters listed on the A2LA scope of accreditation certificate [#5494.01].

Whether a proficiency test is covered or not covered by the scope of accreditation by A2LA can be viewed in our online portal (ODIN).

**Accredited PT-provider** 





### Accreditation DIN EN ISO/IEC 17043:2010 (DAkkS)

The DRRR is an accredited proficiency testing provider by DAkkS according to DIN EN ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [D-EP-17063-01-00].

Whether a proficiency test is covered or not covered by the scope of accreditation by DAkkS can be viewed in our online portal (ODIN).

### Reference material producer

We offer many certified reference materials as well as advise on quality matters and quality assurance training in the laboratory and the production.

### **Customer support**

We provide advice to our customers in all question of validation of chemical-physical, microbiological, organoleptic and physical-mechanical analysis or statistical questions.

High-quality reference material

Any time competent contact persons

### **Medical devices**

The term medical device covers all instruments, substances, objects, machines and software that are used in humans for physical therapeutic and diagnostic purposes. In Germany alone there are over 450,000 different medical devices on the market. The ISO 10993 series of standards describes the testing of medical devices for their biological safety. Biocompatibility testing must be carried out for all new approvals and in case of changes to products. In our new proficiency test programme we focus on chemical characterisation on the one hand and offer 10 new interlaboratory tests in addition to the already existing microbiological proficiency tests in the field of medical devices. In addition to the "tests for sterilization on medical devices according to ISO 11737-1 for various microorganisms", which have been established few years ago and have been accredited since 2020, the field will also be further developed in the year 2021, e.g. by proficiency tests for "test methods for medical face masks (EN 14683)", "tests for in-vitro cytotoxicity (ISO 10993-5)" or the examination of endoscopes. "

### Protein residues in medical devices

When reprocessing medical devices, e.g. endoscopes, testing the effectiveness of cleaning is an important part of quality assurance. This also includes the determination of protein residues by Biuret and BCA methods, among others. Therefore, starting this year, we are offering a proficiency test for this purpose, in which the protein concentration is to be determined quantitatively.

## **ODIN - proficiency testing online**

### Simply brilliant, your proficiency testing with **ODIN (Online Data Information Network).**

- Fast and easy online registration / online announcement in our online catalogue
- · Direct management and booking of the proficiency testing
- Overview about the registered proficiency testing schemes
- · Fast and secure submission of your results via **ODIN**
- · Online access to individual customers reports and certificates
- · Supervisor rights available to overview all PTs of a multi-site company
- · Saving of costs through booking and submission of your results via ODIN

### Secure payment with IRIS (Internet **Remuneration Information Service).**

- · Easy and safe payment by credit card
- · Overview about all invoices
- · Fast and secure online access

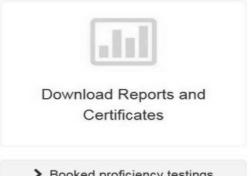
You can also pay your invoice via banktransfer or bank check.



> Proficiency testing catalog



> Booked proficiency testings



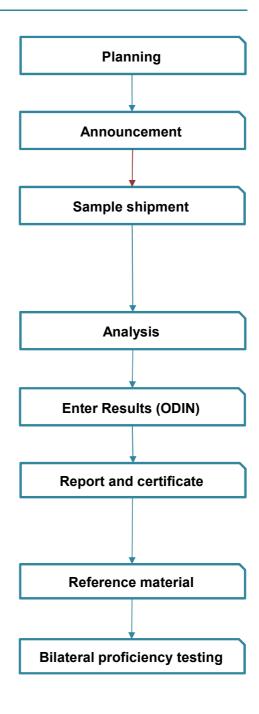
Booked proficiency testings

## **Proficiency testing organisation**

- A precise planning and organisation of each proficiency testing round
- 2 weeks before we will dispatch the samples you will get an announcement with the proficiency testing details
- According to our requirements, you will receive suitable sample material for the respective proficiency testing scheme.

We reserve the right to have an external subcontractor carry out the sample purchase and any necessary testing.

- After receiving the samples you will have a period of 4 weeks for analysing
- Mail back the results via internet by using our result sheets in an Excel file or fill out our result sheets online in ODIN
- At the latest 3 weeks after the deadline you will get the report (optional by login in ODIN, as hardcopy by regular mail or as pdf-file by e-mail) incl. participation certificate with overview of your lab performance
- After the proficiency testing we can offer you reference materials
- Possibility to perform a bilateral proficiency testing (bPT)



## Benefits of proficiency testing

### Why take part in proficiency testing?

- Participation in proficiency testing schemes is required by international standards or national facilities, organizations and customers
- Participants can compare, assure and improve their own performance and quality against other laboratories worldwide
- Laboratories can recognize how well they have been completed with the applied method compared to the other laboratories
- · Saving on the costs of testing
- Unquestionable lab performance towards customers, authorities and certification authorities
- Saving on the costs of lab development and maintenance
- Saving on the costs of lab development and maintenance
- Saving on production costs by avoiding waste of raw material

## Your benefits in DRRR proficiency testing schemes

- Objective and independent impression of your quality and your performance of your routine testing method compared to the other participating laboratories
- Saving the costs, because you have the opportunity to analzye more samples and more parameters in one proficiency testing
- External demonstration of your performance with the results of the proficiency testing
- Build up of your own external quality assurance system with our statistical tools (contains statistical control charts, MS-Excel evaluation files and reference materials). With these tools incorporated your external quality assurance rays unmatched confidence
- Detailed planning and organization of your proficiency testing and an easier, faster and better communication with us



Image source: iStock.com/3dts

## Statistical methods

### We work according to:

- ISO Guide 31 / 35
- DIN EN ISO 17034
- DIN EN ISO/IEC 17020 / 17025 / 17043
- ISO 13528

Homogenous and stable sample material

### **Laboratory performance:**

by calculation of the following paramters:

- z-score
- · z'-score
- CRD-Wert

Calculation of precision data acc. to ISO 5725-2 in many proficiency testing schemes

### Statistical models:

Depending on the type of the distribution of the data, different statistic models are used:

- Conventional statistics (all values)
- · Conventional statistics (no outliers)
- Robust statistics (Hampel estimator, Q-method)
- Robust statistics (Median, MAD/nIQR)
- · Expert laboratory (expert decision)

Selection of statistical method with the chi²-fit test

Method-specific evaluation according to the reference method (if available)

Additional extended method evaluation (in case data are available)



## You are not satisfied with your laboratory performance: What can you do?

Due to your showed laboratory performance you have been asked by the accreditation body, the monitoring authority or your customer to initiate measures to improve your laboratory performance.

These measures are often connected with considerable efforts in the laboratory and you only have a short time frame. In many cases the proof of a successful measure processing, by participation in a new proficiency testing round, is only possible in the following year. Until now it does not exist a possibility for a spontaneous performance review to equalize a previous unsatisfactory proficiency testing result.

## New: The bilateral proficiency testing (bPT)!

You can book and perform individually and flexibly the bilateral proficiency testing during a determined time period.

You receive a proficiency testing sample for analyzing. You submit the results of the testing. After that you will get your proof of performance as a z'-score calculation in the form of a certificate within 1 - 2 weeks.

The performance evaluation refers to the previous regular proficiency testing, so that you can connect the bPT to the regular proficiency testing round. The used sample material is derived from a previous proficiency testing round and provides the possibility of a comparable performance evaluation with the regular proficiency testing.

### Your terms and conditions:

Participation in a bPT is open to all laboratories. Prior participation in our regular proficiency tests is not necessary.

The report of this proficiency testing is not older than ten weeks. You register within these ten weeks for the bPT and the performance is confirmed by the DRRR. The testing period is dependent on the technical factors (parameter, matrix etc.) and will be agreed individually\*. When this time is over after the sample shipment and you do not have sent us your results in this time, we can not evaluate your results and issue a certificate for you.

(\* normally not longer than 1 - 2 weeks)
The bPT is not in the scope of accreditation of
the DRRR. The realization of the bPT depends
on the availability of the material.

### Costs bPT

The costs are identical to the costs of the respective proficiency test from our standard program (see ODIN) plus shipping costs.

Alternative you can also order reference material.

## **Proficiency testing**

### **Features**

The inspectors of the DRRR-team are represent in different national and international committees and working groups. Thus we ensure that the DRRR quality assurance systems are available for new and up-to-date questions in all cases, if the laboratories start to establish the routine method. Due to the intensive professional exchange in the committees, it is ensured that the proficiency testing design is conformed to the new developments and the laboratories have the highest possible benefits in a participation in the proficiency testing.

national and international committees and working groups

### Testing with matrix reference

Whenever possible, real matrices e.g. films, textiles, cardboard and cosmetics are used. This ensures that our proficiency testing schemes have an actual matrix reference and the sample preparation is part of the proficiency testing.

**Matrix reference** 

### Statistical evaluation

Take advantage of our statistical evaluation system. The evaluation of the proficiency testing is based on the highest scientific and statistical level. Therefore the participating laboratories have a very precise feedback on their actual performance.

### **Evaluation**

### **Laboratory Measurement**

By using our market-leading statistical evaluation, additional information such as laboratory uncertainty and various scattering of each laboraotires can be presented.

Market-leading statistical evaluation

## chemical-physical proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 13 of this catalogue.

## medical devices

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:
2010375	Ethylene oxide sterilization residuals (ISO 10993-7) 1	CAS 75-21-8 (Ethylene oxide), CAS 107-07-3 (Ethylene chlorohydrin)	Jun-23	Login or register
2010377	Ethylene oxide sterilization residuals (ISO 10993-7) 2	CAS 75-21-8 (Ethylene oxide), CAS 107-07-3 (Ethylene chlorohydrin)	Jun-23	
2010379	Extraction of metals from medical devices (ISO 10993-12)	Cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	Jun-23	
2010381	Qualitative characterization of medical devices (ISO 10993-18)	qualitative identification of the material, e.g. different plastics	Jul-23	
2010383	Quantitative characterization of medical devices (ISO 10993-18) using X-ray fluorescence analysis	Determination of the elements using XRF	Jul-23	
2010385	Quantitative characterization of medical devices (ISO 10993-18) - Formaldehyde	Formaldehyde	Jul-23	
2010387	Identification and quantification of degradation products from ceramics (ISO 10993-14) 1	Mass of the filter residue and mass of the dissolved material	May-23	
2010389	Identification and quantification of degradation products from ceramics (ISO 10993-14) 2	Quantitative determination of the elements in the test solution	May-23	
2010391	Detection of loss of mass in polymeric medical devices (ISO 10993-13) 1	Loss of mass of the sample in the test solution water	Aug-23	
2010393	Detection of loss of mass in polymeric medical devices (ISO 10993-13) 2	Loss of mass of the sample in the test solution water	Aug-23	
2010961	Protein residues in medical devices	protein quantitatively	Sep-23	

Suitable laboratory equipment is required for participation in the proficiency testing schemes.

[A] = For accredited and non-accredited status please see Online portal (ODIN)

## microbiological proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (www.DRRR.de). You can also use the registration forms on page 13 of this catalogue.

## medical devices

Art. No.	Proficiency testing type [A]	requested parameters	period	To view pricing information visit our online Portal:	
2010696	testing for sterilization of medical devices 1 (ISO 11737-1) risk group 1	aerobic total count quantitative (2 samples)	Jun-23	<u>Login or register</u>	
2010964	testing for sterilization of medical devices 2 (ISO 11737-1) risk group 1	yeasts quantitative (2 samples)	Jun-23		
2010966	testing for sterilization of medical devices 3 (ISO 11737-1) risk group 1	moulds quantitative (2 samples)	Jun-23		
2010968	testing for sterilization of medical devices 4 (ISO 11737-1) risk group 1	aerobic spores quantitative (2 samples)	Jun-23		
2010281	Tests for in vitro cytotoxicity (ISO 10993-5)	Tests for in vitro cytotoxicity (ISO 10993-5) (2 samples)	Nov-23		
2010283	Testing the germ tightness of packaging materials risk group 1	Testing the germ tightness of packaging materials (2 samples)	Nov-23		
2010657	Identification of microorganisms using MALDI-ToF risk group 2	Identification of microorganisms using MALDI-ToF (1 sample)	Nov-23		
2010321	Test method Medical face masks (EN 14683)	Bacterial filter efficiency where appropriate also pressure difference (1 sample á 12 face masks)	May-23		
2010567	microbiological analysis of endoscopes risk group 2	Germ identification on rinse water (3 samples)	Oct-23		

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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With your signature you agree with our general terms and

conditions.

## registration form proficiency testing



Article No. / proficiency test	ting type	period	result release and report online (ODIN)	result release by e- mail / fax; report by e- mail	additional sample sets	
with pathogenic microorganis	For proficiency testing schemes labelled with "risk group 2, or 3**" we need a permission or an exemption for working with pathogenic microorganisms of your lab if existing in your country (e.g. "infection protection law (IfSG)" in Germany). The appropriate form you can find in the product catalogue on page 20.					
Up to nine additional result sheets can be a participant, you benefit from our international comparisions to check differ proficiency testing services save costs for product catalogue.	ational recognized proficience rent methods and different l	cy testing scho ab technician	emes. By submitting up s with one proficiency te	to ten result sheets you a sting round. Your benefit	are now enabled to run :: Participating in DRRR-	
Please note, that the free of charge se additional result sheet will be charged	-	_	-	-	y mail, fax or postal delivery, the	
In very rare individual cases an accredite reasons. In these rare cases the DRRR v free cancellation for the participants is po	vill inform the participants b	efore the star	t of the proficiency testin			
Your registration is an one-time order. It is only valid for one year. Cancelation fees apply when cancelling a registration. If you want to have a permanent-registration please tick the box on the right side.		Please send registration to: fax-no. +49 (0)8 31/960 878-99 e-mail: info@DRRR.de online via www.odin.drrr.de  this registration is permanent-registration and valid until my cancelation				
			•			
	0		r with the total co		andrea and will fall acc	
	0	A Purci	nase order from tr	ie purchasing dep	partment will follow	
DRRR-customer number						
company						
company (additional line)						
contact person						
street						
post-code /city						
country (if not Germany) fon						
fax						
e-mail						
e-mail for invoices						
VAT-ID-No. (if available)						

date

signature

## Sales terms and delivery conditions

### Terms of payment

Our prices are net prices (plus 19% value added tax). Customers from European countries can provide us with their EU-VAT-Identification number, then they will be exempt from German value added tax. Terms of payment: 8 days net, without deduction

Fees for specially required customs documents such as import permits or similar will be invoiced according to time and effort.

Our bank details:

Raiffeisenbank in Allgäuer Land / bank code 733 692 64 Account 102350 / IBAN DE 94733692640000102350 BIC code: GENO DEF1DTA Sales tax ID no. DE254613132

Sales tax ID no. DE254613132 tax number 127/124/32207

### Terms of delivery

Shipping costs for reference materials and proficiency tests will be invoiced according to time and effort. All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the proficiency test can be reclaimed by the DRRR upon request. The DRRR shall bear the shipping costs for the return transport if the materials are reclaimed.

Proficiency tests or reference materials marked "frozen" are shipped with our ADR safety tested frozen packaging system. A packaging fee is charged for the polystyrene box including cooling accumulators and air bubble film as well as the protective outer packaging. Frozen materials are shipped by express service. With the delivery of reference materials, you will receive a quality certificate with the details of the respective reference values as well as associated uncertainties.

### Terms of delivery (risk group 1, 2 and 3)

Proficiency tests or reference materials marked with "Risk Group 1" are not subject to any participation restrictions according to § 44 IfSG (Infektionsschutzgesetz).

For proficiency tests or reference materials marked with "risk group 2, or risk group 3\*\*", we need a permission from your laboratory according to § 44 IfSG (Infektionsschutzgesetz) or similar. Please enclose a copy of the permission with your registration or order.

Our general terms and conditions (Allgemeine Geschäftsbedingungen) are valid!

The German reference office for proficiency testing and reference materials GmbH (hereinafter referred to as DRRR) for freely agreed services, in particular testing, training and expert activities as well as reference materials.

### § 1 General terms and conditions

The client acknowledges the General Terms and Conditions and price lists valid at the time of placing the order. Deviating terms and conditions of individual clients cannot be accepted.

Collateral agreements, promises and other declarations by the employees of the DRRR are only binding if they are expressly confirmed in writing by the DRRR. This shall also apply to amendments to this clause. If individual regulations within this contract or its components are ineffective, this does not affect the validity of the remaining regulations. The contracting parties shall have a duty, acting in accordance with the principles of good faith, to replace any invalid provision by one which is valid and which produces the same economic outcome as that intended by the invalid provision and providing that such replacement does not result in any change to the content of the contract; the same shall also apply analogously to any matter which requires regulation but for which no provision is made in these Terms and Conditions.

### § 2 Execution of the order

The orders accepted by the DRRR shall be carried out or expert opinions shall be prepared in accordance with the recognized rules of technology and – unless otherwise agreed in writing – in the manner customary at the DRRR. No responsibility shall be assumed for the correctness of the safety programs or safety regulations on which the tests are based, unless expressly agreed otherwise in writing.

The scope of the DRRR's work shall be specified in writing when the order is placed. If the proper execution of the order results in changes or extensions to the specified scope of the order, such changes or extensions shall be agreed in writing prior to execution. If the Customer can no longer be reasonably expected to adhere to the contract with regard to the changes or extensions, the Customer shall in this case be entitled to withdraw from the contract. However, according to § 649 BGB, the client must pay the agreed remuneration or, in the absence of an agreement, an appropriate remuneration.

The contractual services of the DRRR are deemed to have been rendered upon preparation of the respective final reports or expert reports.

A seminar registration can be cancelled free of charge for up to 6 weeks, after which the customer will be invoiced for the costs of the participants depending on the time and effort involved.

The following cancellation conditions apply to the cancellation of a proficiency testing:

Canadatian natification pariods	Permanent registration (D)
Cancelation notification period:	single (one-time) registration (E)
un to 2 months hefers the proficional testing	no costs (D)
to 3 months before the proficiency testing	50,00 € (E)
2 months before the proficional testing start	50,00 € (D)
3 months before the proficiency testing start	half proficiency testing price (E)
sample shipment – deadline of the results	complete price of the proficiency testing and any further incurred costs (D & E)

### § 3 Deadlines

The order deadlines specified by the DRRR shall not be binding unless their binding nature has been expressly agreed in written form.

### § 4 Warranty and liability

The integrity of the sample material to a defined condition is only guaranteed until the first border crossing in the case of foreign shipments.

Safety note: When sending materials of risk group 2, the DRRR must receive a letter from the recipient stating that the recipient is authorized to handle hazardous materials (e.g. pathogenic germs).

The DRRR's warranty only covers the services expressly commissioned to it pursuant to Section 2.

No warranty is thereby assumed for the correctness and functioning of the relevant overall system, measuring instruments or materials to which the examined or tested samples belong; in particular, the DRRR bears no responsibility for packaging, material selection and construction of the examined systems, measuring instruments or assemblies, unless these issues are expressly the subject of the order.

Even in the latter case, the warranty obligation and legal responsibility of the manufacturer are neither limited nor assumed

The warranty obligation of the DRRR is limited to the rectification of an error or defect or, in the absence of a warranted characteristic, to the achievement of this characteristic within a reasonable period of time. If the rectification or creation of the characteristic fails, i.e. if it becomes impossible or unreasonable for the Customer or is refused or unduly delayed by the DRRR, the Customer shall be entitled to demand a reduction in the remuneration or rescission of the contract, at its discretion.

The DRRR shall not be liable for any work performed by the Customer in the event of incorrect proficiency tests or reference materials.

The DRRR only assumes liability for certain properties, in particular for the fact that the service is suitable for the purposes of the Customer, if a corresponding assurance of the properties in question has been given. Any liability for consequential damages from positive breach of contract due to warranted characteristics is excluded, unless the warranty was intended to protect against such consequential damages. Claims for damages of the client from §§ 463, 635 BGB due to the lack of assured characteristics remain unaffected.

If an error or defect that does not represent the absence of a warranted characteristic is due to a circumstance for which the DRRR is responsible, the DRRR shall only be liable for any damage incurred by the Customer as a result thereof per order up to a maximum amount that corresponds to the value of the order agreed in accordance with Section 2

The materials may only be used for the corresponding scientific purpose by trained qualified personnel. The DRRR is in no case responsible and liable for used, unused or unusable samples.

The samples are intended for analytical purposes only. The DRRR assumes no liability if the samples are not used for the intended analytical purposes.

All materials are definitely not suitable for human consumption unless they are sensory materials. Oral ingestion of materials not intended for sensory purposes can be harmful to health.

In the case of sensory materials, it is the responsibility of the test persons themselves to check whether they can test the materials with regard to allergies. The ingredients of the sensory materials are declared.

All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the interlaboratory comparison can be reclaimed by the DRRR upon request. The DRRR will bear the shipping costs for the return transport, if the materials are reclaimed.

The analytical properties of the material can only be guaranteed if the transport, storage and use conditions specified by the DRRR are observed.

For frozen samples, the DRRR only guarantees that the samples will be treated in accordance with the material properties stated in the data sheet. For frozen samples delivered to countries outside the EU, we can only guarantee the sample properties up to the first customs clearance point at the respective EU border.

### § 5 Exclusion of further liability and claims

The risk (transport and remuneration risk) shall pass to the Customer as soon as the goods have left the DRRR, regardless of whether the goods are transported by the Customer's own or third-party means of transport. Claims for damages by the client are excluded. This does not apply to intent, gross negligence, breach of essential contractual obligations of the DRRR or the lack of properties guaranteed in writing.

All further claims of the client for direct and indirect damage – for whatever legal reason – in particular claims for damages due to positive breach of contract or from tort and for compensation for damage that did not occur on the object of the order itself are excluded. Irrespective of this, the client is obliged to take out the usual insurance against direct and indirect damage.

### § 6 Remuneration and payment terms

Unless otherwise stated, the prices are in euros and do not include value added tax. This will be invoiced separately at the currently applicable rate in accordance with the applicable tax regulations.

The goods remain the property of DRRR until they have been paid for in full by the customer.

The fees according to the DRRR's currently valid List of Services shall apply to the calculation of the services unless a fixed price or another basis of assessment has been expressly agreed in writing. In the absence of a valid specification of services, individual contractual arrangements shall be made in each case.

Advances on costs can be requested. Partial invoices can also be issued in accordance with the services rendered. Partial invoices need not be marked as such. The receipt of an invoice does not mean that the DRRR has fully invoiced the order.

The fees are due for payment immediately after invoicing, at the latest by the date printed on the invoice (8 days net, without deduction). Unless another arrangement has been made. If payment is made at a later date, default interest of 2% above EURIBOR will be charged on the outstanding invoice amount for the period between the due date and receipt of payment.

Objections to the invoices of the DRRR must be notified in writing within a preclusive period of 14 days after receipt of the invoice, stating reasons.

### § 7 Confidentiality and copyright

The DRRR reserves the copyrights to the expert opinions, test results, calculations, etc. prepared by it. The DRRR and its employees may not unauthorizedly disclose or exploit business and operating relationships that come to their knowledge in the course of their work.

The DRRR may take copies for its files of written documents that have been made available to the DRRR for inspection and that are of importance for the performance of the assignment.

If the proficiency test report and the laboratory code are sent by e-mail, no guarantee can be given that confidentiality will be ensured.

### § 8 Place of jurisdiction, place of performance, applicable law

The place of jurisdiction for the assertion of claims for both parties to the contract is Kempten, provided that the conditions according to § 38 of the German Code of Civil Procedure are met. This applies in particular to dunning proceedings.

The place of performance for all obligations arising from the contract is Kempten, the contractor's registered office

The contractual relationship and all legal relationships are subject exclusively to the law of the Federal Republic of Germany applicable between domestic contracting parties, excluding the Uniform Law on the Sale of Goods and the United Nations Convention on Contracts for the International Sale of Goods.

### § 9 Guarantee of services and goods from cooperation partners

For reference materials sold on behalf of our cooperation partners, the following conditions apply with regard to liability and warranty:

The liability of our cooperation partners, their legal representatives and vicarious agents is limited to cases of intent, gross negligence, absence of a warranted characteristic and breach of an obligation, the non-compliance of which would endanger the purpose of the contract. The liability for proven damages due to grossly negligent conduct is limited to the amount of the contractual remuneration; no liability is assumed for consequential damages. Liability is limited to the use of the reference materials for the purposes described in the respective certificate

Our cooperation partners guarantee the application of scientific diligence as well as compliance with the recognized rules of technology.

Our cooperation partners are entitled to rectify any defects that occur. If the rectification of defects fails, the client is entitled to demand a reduction of the remuneration or cancellation of the contract at his discretion. Further warranty claims are excluded.

The warranty is limited to the stated expiration date of the reference materials.

This applies to: ieLab, TGZ AQS Baden-Württemberg

## Permission for working with pathogenic microorganisms



name, surname  street  post code, city  fon  e-mail  Please tick as approprate and enclose the necessary documents:  Posession of a permission for working with pathogenic microorganisms if existing in your country?  O yes (please enclose copy) O no  Posession of an exemption for working with pathogenic microorganisms if existing in your country? O yes (please enclose verification document) O no  Only for german customers the posession of a permission acc. to \$44 IfSG (german infection protection law) or an exemption acc. \$45 IfSG is obligatory. O yes (please enclose copy or verification document) O no  Because of the fact that this permission usually is person-linked, so please inform us immediately if there is a turnover of staff and send an updated version of the permission to DRRR GmbH.		Kespo	onsible person:	
post code, city  fon  e-mail  Please tick as approprate and enclose the necessary documents:  Posession of a permission for working with pathogenic microorganisms if existing in your country?  O yes (please enclose copy) O no  Posession of an exemption for working with pathogenic microorganisms if existing in your country? O yes (please enclose verification document) O no  Only for german customers the posession of a permission acc. to §44 IfSG (german infection protection law) or an exemption acc. §45 IfSG is obligatory. O yes (please enclose copy or verification document) O no  Because of the fact that this permission usually is person-linked, so please inform us immediately if there is a turnover of staff and send an updated version of the permission to DRRR GmbH.		name,	surname	
e-mail  Please tick as approprate and enclose the necessary documents:  Posession of a permission for working with pathogenic microorganisms if existing in your country?  O yes (please enclose copy) O no  Posession of an exemption for working with pathogenic microorganisms if existing in your country? O yes (please enclose verification document) O no  Only for german customers the posession of a permission acc. to §44 IfSG (german infection protection law) or an exemption acc. §45 IfSG is obligatory. O yes (please enclose copy or verification document) O no  Because of the fact that this permission usually is person-linked, so please inform us immediately if there is a turnover of staff and send an updated version of the permission to DRRR GmbH.		street		
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