

Doemens Technikum



Doemens Catalog of Services



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Contact

Doemens Academy GmbH
Stefanusstrasse 8
82166 Gräfelfing

Telephone:

Main office: 089/85805-0

Fax:

Doemens Technikum: 089/85805-39

Email:

technikum@doemens.org

Website:

www.doemens.org

Bank Information:

HypoVereinsbank Planegg
Kto.-Nr.44 617 625
BLZ 70020270
SWIFT: HYVEDEMM
IBAN: DE32 7002 0270 0044 617 625

Catalog of Services, Version: January 2012

With the publication of a new catalog, all prices appearing in previous versions are no longer valid.

Contact Information

Staff Directory:

<u>Prefix:</u>		089/85805-
Director, Business Consulting and Plant Engineering	Dr. G. Blümelhuber bluemelhuber@doemens.org	-28 01 73 / 58 38 286
Laboratory Director, Consulting	Dr. B. Sacher sacher@doemens.org	-37
Manager, Microbiology Laboratory	Dr. B. Brandl brandl@doemens.org	-35
Assistant Manager, Microbiology Laboratory	Ms. I. Steinack steinack@doemens.org	-30
Microbiology, Consulting, Yeast Bank	Mr. T. Huber huber@doemens.org	-23
Collaborative Trials, Soft Drinks, Consulting	Dr. P. Schropp schropp@doemens.org	-22
Microbiology Laboratory	Ms. A. Velsz-Schmitzer velsz-schmitzer@doemens.org	-52
Chemical-Technical Laboratory, Yeast Bank	Fr. N. Sacher-Meziani sacher-meziani@doemens.org	-52
Chemical-Technical Laboratory, Yeast Bank	Fr. I. Rodina rodina@doemens.org	-52
Pilot Brewery, Consulting	Mr. B. Bleier bleier@doemens.org	-29
Pilot Brewery, Consulting	Mr. M. Eder eder@doemens.org	-25
Pilot Maltery, Consulting	Mr. W. Birk birk@doemens.org	-40
Filling and Packaging, Consulting	Mr. M. Roithmeier roithmeier@doemens.org	-33
Accounting	Ms. C. Stempfl christine.stempfl@doemens.org	-51

Current information can be viewed at www.doemens.org

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Overview of the Doemens Technikum

The Doemens Technikum provides service for companies in the beverage, food and biotechnology industries at an international level as a trusted partner for quality assurance as well as for product and process development. Physical/chemical analyses, hygiene testing and microbiological analyses are performed in our laboratories not only for clients with production facilities but also for those in gastronomy and catering. The spectrum of services offered by the Doemens Technikum encompasses the testing of raw materials, production aids, production materials and intermediary and final products. NIT (near infrared transmission) is considered an indispensable tool in the food industry and is one of the most advanced methods currently available for food analysis. All analysis results are supported by expert advice from the consultants on our staff so that they may be applied in the most competent technical and cost-effective manner, for example, in the development of quality assurance programs and cost optimization measures. Additional services focus on the research, development and improvement of new and existing products and technologies as well as on the creation and implementation of management systems.

Physical / Chemical Analysis

- Raw materials
- Processing aids/processing materials
- Intermediary and finished products
- Identification of potential risk areas
- NIT (Near Infrared Transmission)
- Calibration service
- User support
- Consulting for business startups
- Testing for dangerous substances
- Trace compounds
- Collaborative laboratory trials and analysis

Research and Development

- Pilot brewery
- Filling and packaging
- Product development
- Process development
- Engineering and technology

Microbiology, Production Hygiene

- Raw materials
- Yeast testing
- Creation of risk management plans
- Analysis of hygiene quality aspects concerning beer, beverage, food production as well as in gastronomy and catering facilities
- Identification of potential risk areas
- Supplier of yeast and microorganisms
- Collaborative laboratory trials and analysis

Consulting

Creation and Implementation of Management Systems

- Quality management
- Risk management
- Environmental management
- HACCP

General Terms and Conditions

GENERAL TERMS AND CONDITIONS OF BUSINESS

Doemens Technikum – Doemens Academy GmbH
- hereafter referred to as the DTDA -

1. THE SCOPE OF VALIDITY

The following Terms and Conditions apply exclusively to all business activities involving the Doemens Technikum at Doemens Academy GmbH. By accepting a confirmation of a contractual agreement for services to be rendered, the client agrees to the validity of our Terms and Conditions in its entirety. This document is a translation from the original German, which the client may obtain from Doemens Technikum or Doemens Academy GmbH upon request. If the English translation should conflict with the meaning of the original German in any way, the German version takes precedence.

2. THE SCOPE AND EXECUTION OF TESTING

The client must clearly define in writing the scope and types of analyses to be performed for samples sent to the DTDA. When registering for services over the Internet on the Doemens homepage, the designated code numbers for the analyses must be indicated on or included with the individual samples to be tested. Before sending samples to the DTDA, they should be clearly labeled regarding their origin, for example, "green beer", "unfiltered beer", including shelf life, fill date, etc., if applicable.

If the scope of the testing for samples received by the DTDA is not defined, the client shall be contacted for clarification as to which analyses should be performed. In the case of a special request for analysis services, the scope shall be defined by the DTDA with the permission of the client, and the client will then be notified with confirmation of the order specifying the scope of the analysis services.

Sending samples to the DTDA for analysis or registering samples over the Internet on the Doemens homepage creates an implicit request for services by the client without a written agreement. Acceptance of this contract for services by the DTDA shall be followed by a written confirmation of the order.

Altering, supplementing, or enhancing the scope of the analysis services requires an agreement, which shall be sent to the client in the form of an updated, written confirmation of the order.

The DTDA shall perform the analyses requested by the client on the received samples, which appear in the confirmation of the order, utilizing the most advanced scientific and technical analysis methods currently available in the industry.

The DTDA will perform the requested analyses as quickly as possible. The DTDA reserves the right to engage qualified subcontractors to provide services for analyses and evaluations or parts thereof, particularly for individual, special analyses.

Analyses performed by subcontractors will be specifically marked as such on the confirmation of the order.

3. PRICES AND PAYMENT CONDITIONS

Prices for analyses are invoiced at the rates found in the catalog of services valid at the time the service request is received. Prices do not include the statutory VAT and are to be paid in EUR. On an individual basis, the DTDA may require that requests for services be accompanied by an advance payment prior to performing the analyses. Should an agreement encompassing the prices for the requested services not be available, the client will be billed by the DTDA at the rates specified in the current catalog of services.

Before the requested services, for which pricing is calculated according to personnel or material requirements, are carried out, the client shall be notified regarding the costs of those services. The client agrees to this pricing upon acceptance of the written confirmation of the order.

Invoices from the DTDA are to be paid immediately upon receipt of the bill to the bank account provided by the DTDA. No transaction fees of any kind shall be incurred by the DTDA as a result of payments received for services rendered.

The DTDA reserves the right to withhold further services until clients in arrears have paid invoiced services in full. Under German law, the DTDA has the right to collect interest on late payments after expiration of the grace period according to § 288 of the BGB.

Setting off against counter-claims by the client is only admissible with uncontested or legally-binding, well-established claims. The client is barred from retaining payments for compensation of demands from other contractual relationships.

4. DATA PROTECTION AND CONFIDENTIALITY

The client receives an analysis report for each laboratory analysis performed. The results only apply to the respective samples sent to the DTDA for analysis. Duplicating an analysis report is only permissible with the consent of the DTDA.

All information regarding operational details gleaned through performing requested services shall remain undisclosed by the DTDA. Results and concepts, which are developed in association with services performed for the client, shall be made available only to the client and shall not be made available to a third party or published without the client's consent.

The communication of analysis results over the Internet shall take place only with the approval of the client. This information shall be sent as an encrypted e-mail to the client. The liability for the protection of the analysis results ends upon the client opening and decrypting the e-mail sent by the DTDA.

5. GUARANTEE

The DTDA shall perform the assigned tasks with great care. If shortcomings regarding the execution of requested services result from unclear descriptions or from faulty or insufficient sampling by the client or from incorrect information about samples from the client, the DTDA takes no responsibility and therefore shall not provide a guarantee.

Should the DTDA decline to accept responsibility for performing a particular aspect of a service desired by the client, the client is entitled to perform this aspect himself/herself or seek out a third party to do so. In this case, the DTDA would be released from providing a guarantee for this portion of the service.

6. ACCOUNTABILITY

The DTDA is accountable for only culpably breaching fundamental contractual obligations, provided that premeditation or wanton negligence did not occur or guaranteed provisions were absent. In these cases, compensation for the client is limited to direct losses foreseeable and typical for this type of contract. Accountability for other losses incurred, especially, consequential losses, indirect losses or losses of profit, are excluded. Compensation is also excluded, when, in a single case, it exceeds the value of the requested services.

7. FINAL PROVISION

The client's data shall be processed and stored to the extent that it is necessary for conducting business; this serves as a notice in writing according to § 26, paragraph 1 of the Federal Data Protection Act.

Only the laws of the Republic of Germany apply to the business relationships between the DTDA and its clients.

The area of legal jurisdiction is Gräfelting, as far as is permissible.

General Terms

The prices given do not include the mandatory VAT; discounts are not possible. Prices are subject to change. Fees for analyses and consulting not described in this catalog will be calculated on the basis of the time required to perform them.

Clients receive a report for each analysis.

Clients submitting samples for testing must indicate which analyses are to be performed on each sample. To expedite service, each sample should be labeled with the type of sample as well as the code number for the analysis given in the catalog.

Daily rates for consulting (based on 8 hours per day)

The daily rates for senior experts (e.g. the business director), consultants, technical staff and the use of our facilities (excluding personnel) are available upon request.

The Doemens Technikum is equipped with a pilot brewery, a pilot maltery, filling and packaging equipment as well as microbiology and chemistry laboratories.

Travel times are calculated at half the hourly rates for consulting.

Travel expenses (e.g. transportation €0.50/km, flight costs or overnight accommodations) are not included.

Set prices for pilot batches

<i>Batch</i>	<i>€2000.00</i>
<i>Filtration</i>	<i>€ 800.00</i>
<i>Filling in bottles (does not include empty bottles)</i>	<i>€1000.00</i>
<i>Filling in kegs (does not include empty kegs)</i>	<i>€200.00</i>

Physical / Chemical Analysis

Beer

Code	Description	Sample size	Price
1010	Beer analysis – basic	1 bottle	€ 20.00
	Residual extract, alcohol, original gravity, degree of attenuation, color, pH-value		
1030	Extended beer analysis 1010, pH, final degree of attenuation, bittering units (EBC), foam (Nibem), carbon dioxide	4 bottles	€ 115.00
1050	Complete dietetic (reduced carbohydrate) beer analysis Original gravity (distillation), degree of attenuation, final degree of attenuation, protein (total), simple carbohydrates (fermentable extract, total glucose), digestible carbohydrates, bread units, physiological caloric value	4 bottles	on request
1060	Nutritional analysis Alcohol, utilizable carbohydrates, protein content, physiological caloric value, bread units	2 bottles	on request
1810	Acetoin	100 ml	on request
1110	Alcohol (beer analyzer)	300 ml	€ 18.00
1120	Alcohol (distillation)	500 ml	on request
1700	Aluminum (AAS)	1 bottle*	€ 45.00
10202	Amino acids (HPLC)	100 ml	on request
1320	Anthocyanogens	300 ml	€ 60.00
1520	Ascorbic acid	1 bottle	€ 62.00
1375	Beta-glucan content	200 ml	€ 40.00
1130	Bittering units (EBC)	300 ml	€ 36.00
1140	Bittering compounds, iso-alpha and alpha acids, according to Rigby and Bars	300 ml	€ 65.00
1710	Calcium (phot.)	1 bottle*	€ 25.00
1620	Calcium oxalate (haze tendency)	1 bottle	€ 98.00
1585	Chloride (HPLC)	100 ml	€ 45.00
1800	Chromium (AAS)	1 bottle*	€ 45.00
1530	Citric acid	100 ml	€ 62.00
1870	Diacetyl, total + 2,3 pentanedione, total	1 bottle	€ 55.00
1850	DMS, free	1 bottle	€ 65.00
1860	DMS, free + DMS-P	1 bottle	€ 140.00
1720	Iron (phot.)	1 bottle	€ 25.00
1540	Acetic acid	100 ml	€ 62.00
1510	Ethanol (enzymatic)	1 bottle	€ 75.00
1500	Ethanol (gas chromatography)	1 bottle	€ 65.00

Physical / Chemical Analysis

Code	Description	Sample size	Price
1150	Final degree of attenuation	500 ml	€ 25.00
1160	Residual extract	300 ml	€ 12.00
1170	Color (visual inspection by comparison)	300 ml	€ 9.00
1180	Color (spectrophotometer)	300 ml	€ 16.00
10101	Fatty acids and fatty acid esters	1 bottle	on request
1880	Filterability	500 ml	€ 58.00
1190	Forced aging test (0/40 °C or 0/60 °C)	3 bottles/15 cans	€ 35.00
1550	Fructose (enzymatic)	200 ml	€ 62.00
10102	Fermentation by-products – group analysis 1 Acetaldehyde, acetic acid ethyl ester, n-propanol, 2-methyl-1-propanol, 2-methylbutanol, 3-methylbutanol	1 bottle	on request
10105	Fermentation by-products – group analysis 2 Acetaldehyde, acetic acid ethyl ester, n-propanol, isobutanol, isoamyl acetate, amyl alcohols, total diacetyl, total pentanedione	1 bottle	on request
1245	Total acids – acidity	200 ml	€ 28.00
1560	Glucose (enzymatic)	200 ml	€ 62.00
1600	Glycerin (enzymatic)	200 ml	€ 62.00
1380	Gushing test (calcium/oxalate)		€ 100.00
1200	Iodine test (visual)	100 ml	€ 8.00
1210	Iodine reaction (spectrophotometer)	200 ml	€ 32.00
1730	Potassium (AAS)	1 bottle*	€ 45.00
1220	Carbon dioxide (manometric)	2 bottles	€ 25.00
1740	Copper (phot)	1 bottle*	€ 25.00
1230	Air in headspace (funnel method)	2 bottles	€ 25.00
1750	Magnesium (AAS)	1 bottle*	€ 45.00
1760	Manganese (AAS)	1 bottle*	€ 45.00
1580	Maltose + maltotriose (enzymatic)	500 ml	€ 62.00
1543	Lactic acid (enzymatic)	200 ml	€ 62.00
1545	Lactic acid (HPLC)	200 ml	€ 78.00
1790	Molybdenum (AAS)	1 bottle*	€ 45.00
1770	Sodium (AAS)	1 bottle*	€ 45.00
1590	Nitrate	1 bottle	€ 60.00
1595	Nitrite	1 bottle	€ 60.00
1610	Oxalic acid	10 ml	€ 50.00
1340	Pasteurization efficiency	2 bottles	€ 46.00
1240	pH (glass electrode)	200 ml	€ 8.00
1330	Polyphenols	200 ml	€ 45.00
1335	Reduction potential (ITT)	1 bottle	€ 36.00
1570	Sucrose (enzymatic)	200 ml	€ 62.00
1250	Oxygen, dissolved (electrochemical)	2 bottles	€ 25.00
1260	Foam (Nibem)	3 bottles	€ 30.00
1270	Foam (Ross & Clark)	3 bottles	on request
1350	Sulfur dioxide (distillation)	1 bottle	€ 46.00

Physical / Chemical Analysis

Code	Description	Sample size	Price
1910	Sensory evaluation	2 bottles	€ 25.00
1920	Sensory evaluation – triangle test (7 testers)	5 bottles	€ 150.00
1280	Original gravity (beer analyzer)	300 ml	€ 18.00
1450	Nitrogen, alpha amino	50 ml	€ 60.00
1460	Nitrogen, formol	100 ml	€ 36.00
1470	Nitrogen, total soluble	200 ml	€ 19.00
1420	Nitrogen, coagulable	500 ml	€ 50.00
10204	Nitrogen, Lundin fractions	1000 ml	€ 78.00
1430	Nitrogen, precipitable by magnesium sulfate	200 ml	€ 50.00
1440	Nitrogen, precipitable by molybdenum-phosphoric acid	200 ml	€ 50.00
1587	Sulfate	1 bottle	€ 62.00
1360	Thiobarbituric acid (TBA) value	200 ml	€ 35.00
1290	Clarity	2 bottles	€ 15.00
1390	Foam-over volume	2 bottles	€ 15.00
1300	Degree of attenuation	300 ml	€ 18.00
10103	Vinyl guaiacol, 4-	1 bottle	on request
1370	Viscosity	500 ml	€ 30.00
1780	Zinc (AAS)	1 bottle*	€ 35.00
10205	Sugar profile (HPLC) Fructose, glucose, sucrose, maltose, maltotriose	200 ml	€ 115.00

1 bottle = 500 ml, required solely for this analysis

1 bottle* = can be combined with other analyses designated with an asterisk

Physical / Chemical Analysis

Wort

Code	Description	Sample size	Price
2010	Wort analysis – basic Extract, color, pH, iodine test (visual), final degree of attenuation	500 ml	€ 60.00
2020	Wort analysis with specific nitrogen content 2010 + total nitrogen, coagulable nitrogen, FAN	1000 ml	€ 135.00
2030	Wort analysis – complete 2020 + bittering units (EBC), zinc (AAS), viscosity	1500 ml, at least 2 separate containers	€ 230.00
1700	Aluminum (AAS)	1 bottle*	€ 45.00
10202	Amino acids (HPLC)	100 ml	on request
2210	Anthocyanogens	300 ml	€ 60.00
1375	Beta-glucan content	300 ml	€ 40.00
2110	Bittering units (EBC)	300 ml	€ 36.00
2120	Bittering compounds, iso-alpha and alpha acids, according to Rigby and Bars	300 ml	€ 65.00
1710	Calcium (phot.)	1 bottle*	€ 25.00
1585	Chloride	100 ml	€ 50.00
1800	Chromium (AAS)	1 bottle*	€ 45.00
1850	DMS, free	100 ml	€ 65.00
1860	DMS, free + DMS-P	100 ml	€ 140.00
1720	Iron (phot.)	1 bottle	€ 25.00
2130	Final degree of attenuation	500 ml	€ 25.00
2140	Residual extract	300 ml	€ 12.00
2160	Color (spectrophotometer)	300 ml	€ 16.00
2150	Color (visual comparison – Hellige Neokomparator)	300 ml	€ 9.00
2215	Suspended wort solids	1000 ml	on request
10203	Fatty acids [C ₆ -C ₁₂]	500 ml	on request
1380	Gushing test (calcium/oxalate)	1 bottle	€ 100.00
2180	Iodine reaction (spectrophotometer)	200 ml	€ 32.00
2220	Cold trub (membrane filter)	500 ml	€ 58.00
1740	Copper (phot.)	1 bottle*	€ 25.00
1750	Magnesium (AAS)	1 bottle*	€ 45.00
1760	Manganese (AAS)	1 bottle*	€ 45.00
1790	Molybdenum (AAS)	1 bottle*	€ 45.00
1770	Sodium (AAS)	1 bottle*	€ 45.00
1590	Nitrate	1 bottle	€ 60.00
1595	Nitrite	1 bottle	€ 60.00
1610	Oxalic acid (enzym)	200 ml	€ 50.00
2190	pH value (glass electrode)	200 ml	€ 8.00
2230	Polyphenols, tannins	200 ml	€ 45.00
2235	Reduction potential (ITT)	200 ml	€ 36.00
2240	Sulfur dioxide (distillation)	1 bottle	€ 46.00
Code	Description	Sample size	Price

Physical / Chemical Analysis

1450	Nitrogen, alpha amino	50 ml	€ 60.00
1460	Nitrogen, formol	200 ml	€ 36.00
1410	Nitrogen, total	200 ml	€ 19.00
1420	Nitrogen, coagulable	500 ml	€ 50.00
10204	Nitrogen, Lundin fractions	1000 ml	€ 78.00
1430	Nitrogen, precipitable by magnesium sulfate	200 ml	€ 50.00
1587	Sulfate	100 ml	€ 55.00
2250	Thiobarbituric acid (TBA) value	200 ml	€ 35.00
12190	Clarity	1 bottle	€ 15.00
2260	Viscosity	500 ml	€ 30.00
1780	Zinc (AAS)	1 bottle*	€ 35.00
10205	Sugar profile Fructose, glucose, sucrose, maltose, maltotriose	200 ml	€ 115.00

1 bottle = 500 ml, required solely for this analysis

1 bottle* = can be combined with other analyses designated with an asterisk

Physical / Chemical Analysis

Malt and Grist

Code	Description	Sample size	Price
3010	Malt analysis (basic) Moisture, extract difference (fine and coarse grind), color, saccharification, mash aroma, appearance of the wort, filtration, pH	500 g	€ 40.00
3020	Malt analysis + nitrogen ratios 3010 + total protein, soluble nitrogen, Kolbach index, friability	1000 g	€ 71.00
3030	Malt analysis 1 (extended) 3020 + two additional analyses of your choice (see below)	1000 g	€ 115.00
3040	Malt analysis 2 (extended) 3020 + four additional analyses of your choice (see below)	1500 g	€ 155.00
additional analyses: final degree of attenuation, boiled wort color, viscosity, Hartong VZ 45 °C			
3050	Physical analysis Acrospire length, friability, hectoliter weight, sieving test, thousand kernel weight, endosperm quality – cross section	1000 g	€ 70.00
3060	Caramalt/roasted malt analysis Moisture, extract, wort color	500 g	€ 40.00
3070	NIT analysis (according to calibration parameters) Moisture, extract difference (fine and coarse grind), protein, soluble nitrogen	1000 g	€ 30.00
10005	Aflatoxin B 1	250 g	on request
10303	Alpha-amylase	100 g	€ 60.00
10304	Alpha-amylase, beta-amylase	200 g	€ 95.00
3510	Arsenic (AAS)	100 g*	€ 70.00
3180	Beta-glucan content	200 g	€ 40.00
3185	Beta-glucan content of 65°C mash	200 g	€ 65.00
3110	Acrospire length	50 g	€ 12.00
3520	Lead (AAS)	100 g*	€ 68.00
3530	Cadmium (AAS)	100 g*	€ 68.00
3540	Calcium (phot.)	100 g*	€ 25.00
3550	Chromium (AAS)	100 g*	€ 68.00
10004	Deoxynivalenol (DON), vomitoxin	100 g	on request
3200	Diastatic power	200 g	€ 60.00
3710	DMS + DMS-P	150 g	on request
3709	DMS-P	150 g	on request
3560	Iron (phot.)	100 g*	€ 25.00
3210	Final degree of attenuation*	200 g	€ 25.00
3280	Color (phot.)*	200 g	€ 20.00
3120	Friability	200 g	€ 22.00
3130	Glassy kernels (longitudinal section)	200 g	€ 22.00

Physical / Chemical Analysis

Code	Description	Sample size	Price
10305	Gushing tendency according to Donhauser et al.	1000 g	€ 85.00
3140	Hectoliter weight	500 g	€ 12.00
3190	Homogeneity/modification	100 g	€ 48.00
2170	Iodine normality congress mash (visual)	200 g	€ 10.00
3290	Iodine test, laboratory spent grains (coarse grind)*	200 g	€ 65.00
3570	Potassium (AAS)	100 g*	€ 65.00
3220	Boiled wort color*	200 g	€ 25.00
3000	Congress mash	200 g	€ 25.00
3580	Copper (phot.)	100 g*	€ 25.00
3590	Magnesium (AAS)	100 g*	€ 65.00
3600	Manganese (AAS)	100 g*	€ 62.00
3150	Endosperm quality – cross-section	200 g	€ 12.00
3610	Sodium (AAS)	100 g*	€ 65.00
3195	Nitrosamines	250 g	on request
1610	Oxalic acid (enzymatic)	200 g	€ 50.00
3230	pH (glass electrode)*	200 g	€ 8.00
3620	Mercury (AAS)	100 g*	€ 70.00
10007	Raw fat	200 g	€ 45.00
10306	Mold detection, red kernels, grouped by type	300 g	€ 23.00
3910	Sieving test and husk volume	600 g	€ 30.00
3630	Selenium (AAS)	100 g*	€ 50.00
3810	Sensory analysis of malt	200 g	€ 15.00
10301	Variety identification (electrophoresis)	50 g	on request
10302	Varietal purity (electrophoresis)	50 g	on request
3160	Sieving test	300 g, with a larger sample size, multiple sieving tests may be necessary	€ 17.00
3360	Nitrogen, alpha amino*	200 g	€ 60.00
3370	Nitrogen, formol*	200 g	€ 36.00
3310	Nitrogen, total*	200 g	€ 19.00
3320	Nitrogen, coagulable*	200 g	€ 50.00
3330	Nitrogen, soluble*	200 g	€ 22.00
3340	Nitrogen, precipitable by magnesium sulfate*	200 g	€ 50.00
3350	Nitrogen, precipitable by molybdenum-phosphoric acid*	200 g	€ 50.00
3170	Thousand kernel weight	200 g	€ 15.00
3225	Thiobarbituric acid (TBA) value*	200 g	€ 48.00
1290	Clarity*	200 g	€ 15.00
3240	Saccharification time (iodine test)*	200 g	€ 5.00
3250	Viscosity*	200 g	€ 30.00
3255	Viscosity of 65 °C mash	200 g	€ 46.00
3260	Hartong VZ 45 °C*	300 g	€ 23.00
3270	Moisture content	100 g	€ 12.00
3640	Zinc (AAS)	100 g*	€ 65.00

* = in conjunction with a mash procedure

* amount = 200g for a mash procedure

Physical / Chemical Analysis

Adjuncts

Code	Description	Sample size	Price
4010	Adjunct analysis (basic) moisture, protein	100 g	€ 28.00
4020	Barley (extended analysis) 4010 + thousand kernel weight, hectoliter weight, germinative capacity [hydrogen peroxide method], sieving test, germinative energy after 3 and 5 days	1000 g	€ 110.00
4030	Barley (physical analysis) Hectoliter weight, sieving test, thousand kernel weight, endosperm quality – cross-section	1000 g	€ 48.00
4040	Corn, rice or millet analysis Moisture, protein, extract, gelatinization temperature, fat	500 g	€ 135.00
4110	Ash content	200 g	€ 36.00
4120	Pregermination (copper sulfate method)	100 g	€ 22.00
4130	Protein	100 g	€ 22.00
4140	Extract	100 g	€ 42.00
4160	Hectoliter weight	500 g	€ 12.00
4170	Germinative energy after 3 and 5 days	100 g	€ 32.00
4190	Germinative capacity (hydrogen peroxide method)	100 g	€ 28.00
4180	Germinative capacity (Vitascope)	50	€ 28.00
4200	Endosperm quality	200 g	€ 12.00
4050	NIT barley analysis	1000 g	€ 17.00
4150	Raw fat	100 g	€ 52.00
10301	Variety identification (electrophoresis)	50 g	on request
10302	Varietal purity (electrophoresis)	50 g	on request
4210	Sieving test	300 g, with a larger sample size, multiple sieving tests may be necessary	€ 19.00
4220	Thousand kernel weight	100 g	€ 15.00
4230	Gelatinization temperature	200 g	On request
4250	Water sensitivity	100 g	€ 28.00
4240	Moisture content	50 g	€ 12.00

Spent Grains

Code	Description	Sample size	Price
5010	Analysis of wet spent grains Moisture content, soluble and residual extract, total extract	1000 g	€ 65.00
5020	Analysis of dried spent grains Soluble and residual extract, total extract	500 g	€ 65.00
5110	Residual extract	500 g	€ 38.00
5120	Soluble extract	500 g	€ 28.00
5130	Moisture content	300 g	€ 12.00

Hops

Code	Description	Sample size	Price
6010	Hop analysis (basic) Lead conductance value, moisture content (MEBAK)	200 g	€ 58.00
6020	Hop analysis (extended) Lead conductance value, moisture content, alpha acids and beta acids (HPLC)	400 g	on request
6110	Alpha acids and beta acids (HPLC)	200 g	on request
6120	Time required for pellet dispersal	100 g	€ 12.00
6130	Manual hop evaluation	500 g	€ 22.00
6140	Resin fractions (MEBAK) Total resins, total soft resins, lead conductance value, beta fraction, hard resins	200 g	€ 95.00
6150	Hop oils (distillation method)	200 g	on request
6160	Lead conductance value (MEBAK)	200 g	€ 53.00
6170	Nitrate	20 g	€ 90.00
6180	Sulfur dioxide (distillation method)	200 g	€ 46.00
6109	Particle size of the pellets	100 g	€ 22.00
6200	Moisture content	100 g	€ 12.00

Physical / Chemical Analysis

Water Analysis

Code	Description	Sample size	Price
7010	Hardness (basic analysis) Total hardness, carbonate hardness, p and m value	500 ml	€ 34.00
7020	Analysis for evaluation as brewing water Total hardness, carbonate hardness, p and m value, residual alkalinity (residual hardness), calcium hardness (complexometric), magnesium hardness, pH value, total alkalinity, residual alkalinity, appearance, aroma, flavor	1000 ml	€ 60.00
7030	Complete analysis for evaluation as brewing water 7020 + ammonia, iron, manganese, silica, sulfate, chloride, free chlorine, nitrate (dimethyl phenol method), nitrite, phosphate, evaporative residue, oxidizable substances	2000 ml	€ 250.00
7040	Chemical analysis for evaluation of the hygienic quality of water: ammonia, nitrate, nitrite, chloride, evaluation	1500 ml	€ 180.00
7050	Chemical analysis according to the German law governing drinking water TVO (Anlage 2 Abschnitt I zu § 2 Abs. 1, effective 05.12.1990) Arsenic, lead, cadmium, chromium, nickel, mercury, cyanide, fluoride, nitrate, nitrite, polycyclic aromatic hydrocarbons, chlorinated organic compounds, evaluation	2000 ml	€ 360.00
7060	Chemical analysis according to the German law governing natural mineral water MTVO for allowable concentration limits (Anlage 1 zu § 2, effective 01.08.1984/05.12.1990) Arsenic, antimony, lead, cadmium, chromium (total), nickel, mercury, selenium, borate, barium, evaluation	2000 ml	€ 310.00
7120	Evaporative residue and ash content	1000 ml	€ 38.00
7110	Evaporative residue	500 ml	€ 21.00
7340	Aggressive carbon dioxide	1000 ml	€ 28.00
7130	Aluminum (AAS)	*	€ 45.00
7140	Ammonia compounds	500 ml	€ 40.00
7150	Antimony (AAS)	*	€ 45.00
7160	Arsenic (AAS)	*	€ 46.00
7170	Barium (AAS)	*	€ 45.00
7180	Lead (AAS)	*	€ 45.00
7200	Calcium, as a free cation (complexometric)	100 ml	€ 19.00
7190	Cadmium (AAS)	*	€ 45.00
7210	Calcium (AAS)	*	€ 45.00
7220	Calcium and magnesium (complexometric)	200 ml	€ 35.00
7240	Chloride	100 ml	€ 19.00
7250	Chromium (AAS)	*	€ 45.00
7255	Cobalt (AAS)	*	€ 45.00
7260	Cyanide (electrometric)	100 ml	€ 45.00
7270	Iron (AAS)	*	€ 40.00

Physical / Chemical Analysis

Code	Description	Sample size	Price
7280	Fluoride (electrometric)	100 ml	€ 45.00
7330	Free carbon dioxide	500 ml	€ 20.00
7230	Free chlorine (toluidine method)	100 ml	€ 17.00
7290	Total hardness (complexometric)	500 ml	€ 19.00
7300	Ash content	500 ml	€ 20.00
7310	Potassium (AAS)	*	€ 40.00
7320	Carbonate hardness, p and m value	500 ml	€ 18.00
7350	Copper (AAS)	*	€ 40.00
7360	Conductivity	100 ml	€ 12.00
7370	Magnesium (AAS)	*	€ 40.00
7380	Manganese (AAS)	*	€ 40.00
7390	Sodium (AAS)	*	€ 40.00
7400	Nickel (AAS)	*	€ 45.00
7410	Nitrate (dimethyl phenol method)	100 ml	€ 22.00
7420	Nitrite	100 ml	€ 22.00
7580	Surface tension	500 ml	€ 45.00
7430	Oil	500 ml	€ 65.00
7440	Chlorinated organic compounds total amount of 1,1,1-trichloromethane, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride	250 ml	€ 100.00
7450	Oxidization test (KMnO ₄ consumption)	500 ml	€ 25.00
7460	Phenols (volatile in steam)	1000 ml	€ 55.00
7470	Phosphate	100 ml	€ 22.00
7480	pH value (glass electrode)	500 ml	€ 8.00
7490	Polycyclic aromatic hydrocarbons	1000 ml	€ 80.00
7100	Buffer capacity	500 ml	€ 22.00
7500	Mercury (AAS)	*	€ 46.00
7510	Oxygen, dissolved (electrochemical)	1000 ml	€ 22.00
7520	Selenium (AAS)	*	€ 46.00
7530	Sensory analysis	500 ml	€ 12.00
	Appearance, odor, flavor		
7540	Silver (AAS)	*	€ 45.00
7550	Silica	100 ml	€ 22.00
7560	Sulfate	100 ml	€ 26.00
7570	Zinc (AAS)	*	€ 40.00

* =cations can be determined in a 500 ml sample

special containers for PAH, chlorinated organic compounds, heavy metals, cyanide, pesticides (see leaflet: Merkblatt TwVO QM-HB 5.8.1)

Soft Drinks

Code	Description	Sample size	Price
8010	Total analysis Extract or conductivity, total acids, carbon dioxide, pH	2 bottles	€ 58.00
8110	Ascorbic acid	1 bottle	€ 62.00
8135	Aspartame	1 bottle	€ 65.00
8120	Citric acid	200 ml	€ 62.00
8140	Extract (density measurement)	300 ml	€ 12.00
8215	Color (photometric)	200 ml	€ 16.00
8150	Fructose (enzymatic)	200 ml	€ 62.00
8160	Total acids (titrimetric)	200 ml	€ 28.00
8170	Glucose (enzymatic)	200 ml	€ 62.00
8005	Inversion of soft drink sample	500 ml	€ 25.00
8130	Caffeine	1 bottle	€ 65.00
8180	Carbon dioxide (manometric)	2 bottles	€ 25.00
8190	Conductivity	300 ml	€ 12.00
8200	Nitrate (enzymatic)	300 ml	€ 65.00
8210	pH value (glass electrode)	200 ml	€ 8.00
8220	Sucrose (enzymatic)	200 ml	€ 62.00
8230	Sensory evaluation	2 bottles	€ 20.00

Brine Solutions

Code	Description	Sample size	Price
9010	Collective analysis Alkalinity, ammonia, density, pH value, buffer capacity	2000 ml	€ 75.00
9110	Alkalinity (p and m value)	500 ml	€ 18.00
9120	Ammonia	200 ml	€ 22.00
9130	Density (°Baumé)	200 ml	€ 12.00
9140	pH value (glass electrode)	200 ml	€ 8.00
9150	Buffer capacity	500 ml	€ 22.00

Filter Aids and Stabilizing Agents

Code	Description	Sample size	Price
9510	Calcium (soluble in beer)	100 g	€ 46.00
9520	Iron (soluble in beer)	100 g	€ 70.00
9530	Flavor transfer to beer	100 g	€ 50.00
9540	Loss on ignition	100 g	€ 35.00
9550	pH value (glass electrode)	100 g	€ 10.00
9560	Water content	100 g	€ 12.00
9570	Water value (according to Schenk)	300 g	€ 75.00

Special Analysis

Code	Description	Sample size	Price
10001	Formaldehyde	2 bottles	on request
10008	Halogenated carboxylic acids	2 bottles	on request
10006	Monobrominated acetic acid	2 bottles	on request
10003	Quaternary ammonia compounds		on request
10104	Surfactants		on request
7800	Wastewater analysis		on request

Microbiological Analysis

Beer

General

Code	Description	Required sample size unless otherwise noted, 500 ml	Price
20911	Visual examination of prepared samples		€ 8.00
20910	Microscopy of prepared samples		€ 16.00
20200	Microscopy – preliminary examination		€ 16.00
20231	Microscopy – preliminary examination of sediment	minimum 1 ml	€ 16.00
20097	Sample preparation for microbiological analysis		€ 20.00
20252	Shelf life sample (for monitoring sample quality)	2 bottles	€ 22.00
20095	Streak plates for colony isolation		€ 26.00
20140	Streak plate, crystal violet agar, aerobic incubation for <i>Saccharomyces</i> wild yeast strains		€ 32.00
20141	Streak plate, lysine agar, aerobic incubation for non- <i>Saccharomyces</i> wild yeast strains		€ 42.00
20160	Streak plate, melibiose agar for differentiation of bottom and top-fermenting yeasts		€ 42.00

Beer, unfiltered

Code	Description	Required sample size unless otherwise noted, 500 ml	Price
20107	Liquid enrichment in Doemens Select broth for bacterial beer spoilers		€ 25.00
20251	Liquid enrichment in Doemens Select concentrate for bacterial beer spoilers		€ 26.00
20272	Liquid enrichment in wort, aerobic incubation for yeasts, molds		€ 26.00
20273	Liquid enrichment in wort, aerobic incubation + Doemens Select broth for yeasts, molds, bacterial beer spoilers		€ 31.00
20274	Liquid enrichment in wort, aerobic incubation + Doemens Select broth + Standard I nutrient broth , aerobic incubation for bacterial beer spoilers, yeasts, molds; aerobic, mesophilic microorganisms (total cell count)		€ 36.00
20150	Liquid enrichment in fermented beer medium for over-fermenting wild yeasts		€ 30.00
20109	Microscopy – preliminary examination + streak plate, Doemens Select agar for bacterial beer spoilers		€ 29.00
20111	Microscopy – preliminary examination + streak plate, Doemens Select agar + Standard I nutrient agar for bacterial beer spoilers, aerobic, mesophilic microorganisms (total cell count)		€ 33.00
20130	Cell count with a hemocytometer		€ 38.00
20101	Streak plate, Standard I nutrient agar, aerobic incubation for aerobic, mesophilic microorganisms (total cell count)		€ 25.00

Microbiological Analysis

Code	Description	Required sample size unless otherwise noted, 500 ml	Price
20102	Streak plate, wort agar, aerobic incubation for yeasts, molds		€ 25.00
20103	Streak plate, Doemens Select agar for bacterial beer spoilers		€ 25.00
20105	Streak plate, Standard I nutrient agar, wort agar, Doemens Select agar for bacterial beer spoilers, yeasts, molds; aerobic, mesophilic microorganisms (total cell count)		€ 36.00

Beer, filtered

Code	Description	Required sample size unless otherwise noted, 500 ml	Price
20241	Membrane filtration, Standard I nutrient agar, aerobic incubation for aerobic, mesophilic microorganisms (total cell count)		€ 28.00
20240	Membrane filtration, wort agar, aerobic incubation for yeasts		€ 28.00
20239	Membrane filtration, wort agar, anaerobic incubation for yeasts		€ 28.00
20250	Membrane filtration, Doemens Select agar for bacterial beer spoilers		€ 28.00
20260	Membrane filtration, wort agar, aerobic incubation + Doemens Select agar for yeasts, beer spoilage bacteria		€ 33.00
20261	Membrane filtration, Standard I nutrient agar, aerobic incubation + wort agar, aerobic incubation + Doemens Select agar for aerobic, mesophilic microorganisms (total cell count), yeasts, beer spoilage bacteria		€ 38.00
20161	Membrane filtration, crystal violet agar, for <i>Saccharomyces</i> wild yeast strains		€ 34.00
20162	Membrane filtration, lysine agar, for non- <i>Saccharomyces</i> wild yeast strains		€ 44.00
20163	Membrane filtration, melibiose agar for differentiation of bottom and top-fermenting yeasts		€ 44.00
20164	Membrane filtration, cultured in fermented beer medium for over-fermenting wild yeasts		€ 31.00

Microbiological Analysis

Wort

Code	Description	Required sample size if not otherwise noted, 500 ml	Price
20910	Microscopy of prepared samples		€ 16.00
20200	Microscopy – preliminary examination		€ 16.00
20231	Microscopy – preliminary examination of sediment		€ 16.00
20097	Sample preparation for microbiology		€ 20.00
20095	Streak plates for colony isolation		€ 26.00
20220	Liquid enrichment in Doemens Select concentrate for bacterial beer spoilers		€ 28.00
20210	Shelf life sample (for monitoring sample quality) for yeasts, bacteria		€ 22.00
20211	Shelf life sample (for monitoring sample quality) wort + actidione for wort bacteria		€ 28.00
20212	Shelf life sample (for monitoring sample quality) wort + chloramphenicol for yeasts, molds		€ 28.00
20221	Shelf life sample (for monitoring sample quality) wort + liquid enrichment with Doemens Select concentrate for bacterial beer spoilers		€ 35.00
20101	Streak plate, Standard I nutrient agar for aerobic, mesophilic microorganisms (total cell count)		€ 25.00
20102	Streak plate, wort agar for yeasts, molds		€ 25.00
20112	Second enrichment		€ 14.00

Microbiological Analysis

Yeast

Code	Description	Required sample size	Price
20911	Visual examination of prepared samples		€ 8.00
20910	Microscopy of prepared samples		€ 16.00
20100	Microscopy – preliminary examination		€ 16.00
20097	Sample preparation for microbiology		€ 20.00
20095	Streak plates for colony isolation		€ 26.00
20131	Cell count of colony forming units		€ 60.00
20130	Cell count with hemocytometer		€ 38.00
20170	Sugar metabolism (each type of sugar)		€ 25.00
20112	Second enrichment		€ 14.00
20110	Microscopy – preliminary examination + percentage of living cells (phase contrast microscopy), streak plate, Doemens Select agar for bacterial beer spoilers		€ 32.00
20109	Microscopy – preliminary examination + streak plate, Doemens Select agar for bacterial beer spoilers		€ 28.00
20111	Microscopy – preliminary examination + streak plate, Doemens Select agar + Standard I nutrient agar for bacterial beer spoilers, aerobic, mesophilic microorganisms (total cell count)		€ 33.00
20121	Methylene blue dye percentage of living cells		€ 15.00
20120	Phase contrast microscopy percentage of living cells		€ 12.00
20122	Fluorescence microscopy percentage of living cells		€ 25.00
20107	Liquid enrichment in Doemens Select broth for beer spoilage bacteria		€ 26.00
20150	Liquid enrichment in fermented beer medium for over-fermenting wild yeasts		€ 30.00
20370	Fermentation of sample in wort		€ 25.00
20174	Determination of genotype using microsatellites		€ 180.00
20173	Determination of genotype using sequence analysis		€ 180.00
20171	Phenotype determination with API test		€ 60.00
20103	Streak plate, Doemens Select agar, for beer spoilage bacteria		€ 26.00
20140	Streak plate, crystal violet agar, aerobic incubation for <i>Saccharomyces</i> wild yeast strains		€ 32.00
20141	Streak plate, lysine agar, aerobic incubation for non- <i>Saccharomyces</i> wild yeasts		€ 42.00
20160	Streak plate, melibiose agar for differentiation between top and bottom-fermenting yeasts		€ 42.00
20101	Streak plate, Standard I nutrient agar, aerobic incubation for aerobic, mesophilic microorganisms (total cell count)		€ 25.00

Microbiological Analysis

Soft Drinks

Code	Description	Required sample size unless otherwise noted, 500 ml	Price
20910	Microscopy of prepared samples		€ 16.00
20300	Microscopy – preliminary examination		€ 16.00
20097	Sample preparation for microbiology		€ 20.00
20095	Streak plates for colony isolation		€ 26.00
20330	Liquid enrichment in SSL broth + pour plate with orange serum agar for beverage spoilers (yeasts, molds, bacteria)		€ 32.00
20355	Membrane filtration, Standard I nutrient agar + orange serum agar, aerobic + anaerobic incubation for aerobic, mesophilic microorganisms (total cell count); beverage spoilers (yeasts, molds, bacteria)		€ 38.00
20350	Membrane filtration, orange serum agar, aerobic + anaerobic incubation for beverage spoilers (yeasts, molds, bacteria)		€ 33.00
20360	Pour plate, orange serum agar for aerobic + anaerobic yeasts		€ 27.00
20365	Pour plate, wort agar for yeasts, molds		€ 27.00
20401	Membrane filtration, lactose broth for <i>E. coli</i> + coliforms		€ 35.00
20403	Membrane filtration, Endo agar for <i>E. coli</i> + coliforms		€ 35.00

Microbiological Analysis

Water

Code	Description	Required sample size unless otherwise noted, 500 ml	Price
20410	Analysis of drinking water without coliform differentiation		€ 58.00
20430	<i>E. coli</i> / coliforms without differentiation		€ 30.00
20432	Differentiation of <i>E. coli</i> / coliforms		€ 30.00
20440	Colony count		€ 30.00
20450	Fecal streptococci		on request
20455	Differentiation of fecal streptococci		on request
20460	<i>Pseudomonas aeruginosa</i>		on request
20465	Differentiation of <i>Pseudomonas aeruginosa</i>		on request
20470	Clostridia		on request
20475	Differentiation of clostridia		on request
	Analysis and sample collection for TwVO on request		on request

MTVO

Code	Description	Required sample size unless otherwise noted, 500 ml	Price
20510	Analysis according to MTVO without differentiation for <i>E. coli</i> + coliforms only		€ 60.00
20520	<i>E. coli</i> / coliforms according to MTVO		€ 32.00
20525	Differentiation of <i>E. coli</i> / coliforms		on request
20560	Colony count according to MTVO		€ 30.00
20530	Fecal streptococci according to MTVO		€ 30.00
20535	Differentiation of fecal streptococci		on request
20540	<i>Pseudomonas aeruginosa</i> according to MTVO		€ 30.00
20545	Differentiation of <i>Pseudomonas aeruginosa</i>		on request
20550	Clostridia according to MTVO		€ 30.00
20555	Differentiation of clostrida		on request

Ambient Air, Compressed Air, CO₂

Code	Description	Required sample size	Price
20281	Air sampler, Doemens Select agar for beer spoilage bacteria		€ 28.00
20284	Air sampler, Endo agar, aerobic incubation for <i>E. coli</i> + coliforms		€ 28.00
20283	Air sampler, orange serum agar, aerobic or anaerobic incubation for beverage spoilers (yeasts, molds, bacteria)		€ 28.00
20280	Air sampler, Standard I nutrient agar, aerobic incubation for aerobic, mesophilic microorganisms (total cell count)		€ 28.00
20282	Air sampler, wort agar, aerobic incubation for yeasts, molds		€ 28.00

Microbiological Analysis

Filter Aids, Stabilizing Agents

Code	Description	Required sample size	Price
20097	Sample preparation for microbiology		€ 20.00
20910	Microscopy of prepared samples		€ 16.00
20200	Microscopy – preliminary examination		€ 16.00
20241	Membrane filtration, Standard I nutrient agar, aerobic incubation for aerobic, mesophilic microorganisms (total cell count)		€ 28.00
20240	Membrane filtration, wort agar, aerobic incubation for yeasts, molds		€ 28.00
20250	Membrane filtration, Doemens Select agar for bacterial beer spoilers		€ 28.00
20270	Liquid enrichment in Standard I nutrient broth for aerobic, mesophilic microorganisms (total cell count)		€ 26.00
20272	Liquid enrichment in wort, aerobic incubation for yeasts, molds		€ 26.00
20107	Liquid enrichment in Doemens Select broth for beer spoilage bacteria		€ 26.00
20251	Liquid enrichment in Doemens Select concentrate for beer spoilage bacteria		€ 26.00
20273	Liquid enrichment in wort, aerobic incubation + Doemens Select broth for yeasts, molds; bacterial beer spoilers		€ 31.00
20274	Liquid enrichment in wort, aerobic + Doemens Select broth + Standard I nutrient broth , aerobic incubation for aerobic, mesophilic microorganisms (total cell count), yeasts, molds, beer spoilage bacteria		€ 36.00
20101	Streak plate, Standard I nutrient agar, aerobic incubation, for aerobic, mesophilic microorganisms (total cell count)		€ 25.00
20102	Streak plate, wort agar, aerobic incubation for yeasts, molds		€ 25.00
20103	Streak plate, Doemens Select agar for bacterial beer spoilers		€ 26.00
20275	Streak plates, Standard I nutrient agar, wort agar, Doemens Select agar for aerobic, mesophilic microorganisms (total cell count), yeasts, molds, beer spoilage bacteria		€ 36.00

Spoilage Microorganisms, Detection

Code	Description	Required sample size	Price
20911	Visual examination of prepared samples		€ 8.00
20910	Microscopy of prepared samples		€ 16.00
20095	Streak plates for colony isolation		€ 26.00
20920	Cytochrome oxidase test		€ 8.00
20700	Proof of spoilage ability of microorganisms detected		€ 58.00
20171	Phenotype determination with API test		€ 60.00
20400	Liquid enrichment in lactose broth		€ 36.00
20380	Fermentation of sample in beverage/standard medium		€ 58.00
20370	Fermentation of sample in wort		€ 25.00
20173	Determination of genotype using sequence analysis		€ 180.00

Microbiological Analysis

Water for Brewing, Rinsing and Processing, Disinfectants, Packaging Materials, Swab Samples

General

Code	Description	Required sample size	Price
20910	Microscopy of prepared samples		€ 16.00
20200	Microscopy – preliminary examination		€ 16.00
20097	Sample preparation for microbiology		€ 20.00
20095	Streak plates for colony isolation		€ 26.00
20610	Aerobic mesophilic and thermophilic microorganisms (total cell count)		€ 35.00

Brewery

Code	Description	Required sample size	Price
20241	Membrane filtration, Standard I nutrient agar, aerobic incubation for aerobic, mesophilic microorganisms (total cell count)		€ 28.00
20240	Membrane filtration, wort agar, aerobic incubation for yeasts		€ 28.00
20239	Membrane filtration, wort agar, anaerobic incubation for yeasts		€ 28.00
20250	Membrane filtration, Doemens Select agar for beer spoilage bacteria		€ 28.00
20260	Membrane filtration, wort agar, aerobic incubation + Doemens Select agar for yeasts, beer spoilage bacteria		€ 33.00
20261	Membrane filtration, Standard I nutrient agar, aerobic + wort agar, aerobic + Doemens Select agar, anaerobic incubation for aerobic, mesophilic microorganisms (total cell count), yeasts, beer spoilage bacteria		€ 38.00

Soft drinks

Code	Description	Required sample size	Price
20340	Membrane filtration, orange serum agar, aerobic incubation for beverage spoilers (yeasts, molds, bacteria)		€ 28.00
20345	Membrane filtration, orange serum agar, anaerobic incubation beverage spoilers (yeasts, molds, bacteria)		28.00 €
20350	Membrane filtration, orange serum agar, aerobic + anaerobic incubation for beverage spoilers (yeasts, molds, bacteria)		33.00 €
20355	Membrane filtration, Standard I nutrient agar + orange serum agar, aerobic + anaerobic incubation for beverage spoilers (yeasts, molds, bacteria)		38.00 €

Disinfectants

20617	Disinfectant test EN 1650		on request
20618	Disinfectant test EN 1276		on request

Microbiological Analysis

PCR-analysis of all types of samples relevant for the breweries

Code	Description	Required sample size	Price
22000	PCR-Screening on beer spoiling bacteria (Pediococcus, Lactobacillus)		€ 50,00
22100	PCR-Screening on beer spoiling bacteria (Pectinatus, Megaspheara)		€ 50,00
22110	PCR-differentiation of culture yeast (top fermenting and bottom fermenting yeast)		€ 50,00
22120	PCR-Screening on over-attenuating yeasts (S. diastaticus)		€ 50,00
22130	PCR- Screening on S. bayanus / S. pastorianus		€ 50,00
22140	PCR- Screening on Dekkera bruxellensis, Dekkera anomala, Pichia anomala and Pichia membranaefaciens		€ 50,00

contact:

Dr. Andreas Brandl

e-mail: brandl@doemens.org

Tel.: 089-85805-35

Fax: 089-85805-39

Microbiological Analysis

Nutrient Media and Shipping Materials

Code	Description	Required sample size	Price
20085	Doemens Select agar (1l)		€ 35.00
20086	Doemens Select broth (1l)		€ 35.00
20087	Doemens Select concentrate (1l)		€ 38.00
20088	Doemens Select agar powder (for a total of 2 liters of nutrient media)		€ 45.00
20089	Doemens Select broth powder (for a total of 2 liters of nutrient media)		€ 45.00
20090	Doemens Select concentrate powder (for a total of 2 liters of nutrient media)		€ 52.00
20093	lb easy agar (1l)		€ 39,00
20094	lb lique broth(1l)		€ 39,00
20095	lb yeast agar (1l)		€ 39,00
20096	lb Nik rapid detection method (determination fermenting/nonfermenting yeast) (1 Test)		€ 9,00
20097	lb Jos rapid detection method (determination top fermenting/ bottom fermenting yeast) (1 Test)		€ 9,00
20091	Laboratory box		
20092	Bag for shipping yeast		

Yeast Bank and Microorganism Collection

Code	Description	Required sample size	Price
20770	Yeast culture from a pure strain		€ 460.00
20760	Pure yeast culture on agar slant*		€ 78.00
20750	Pure yeast culture, liquid (500 ml)*		€ 95.00
20765	Dry yeast*		€ 45.00
20850	Bacterial cultures*		€ 80.00

*plus shipping and packaging

