

Spectroquant®

Prove

The following methods with the corresponding method numbers are programmed into the photometer. The measurements can be made without any further adjustments. In addition several applications (AppNotes) are pre-programmed. The full description of the AppNotes and their procedure you can find on: www.merckmillipore.com/aaf. The applications are grouped into the following segments.

Legend:

- Brewery AppNotes
- Water and Waste Water AppNotes
- ICUMSA and Oil AppNotes
- Further AppNotes



Overview of preprogrammed Methods and AppNotes

Meth. No.	Determination	Art. No.	Total range	Cell size [mm]	Method
208	Acid Capacity Cell Test to pH 4.3 (total alkalinity)	101758	0.40 – 8.00 mmol/l	–	Indicator reaction
2518	ADMI	AppNote	2.0 – 100.0		Inherent color
2517	ADMI	AppNote	10 – 500		Inherent color
2612	α Acids ²⁾	AppNote	0 – 80 mg/l		Inherent color
196	Aluminium Cell Test ¹⁾	100594	0.02 – 0.50 mg/l Al	–	Chromazurole S
43	Aluminium Test ¹⁾	114825	0.020 – 1.20 mg/l Al	10, 20, 50	Chromazurole S
Amino nitrogen, free – see Free Amino Nitrogen					
2520	Ammonia, free	AppNote	0.00 – 3.65 mg/l NH ₃	10, 20, 50	as ammonium
104	Ammonium Cell Test	114739	0.010 – 2.000 mg/l NH ₄ -N	–	Indophenol blue
51	Ammonium Cell Test	114558	0.20 – 8.00 mg/l NH ₄ -N	–	Indophenol blue
52	Ammonium Cell Test	114544	0.5 – 16.0 mg/l NH ₄ -N	–	Indophenol blue
53	Ammonium Cell Test	114559	4.0 – 80.0 mg/l NH ₄ -N	–	Indophenol blue
54	Ammonium Test	114752	0.010 – 3.00 mg/l NH ₄ -N	10, 20, 50	Indophenol blue
155	Ammonium Test	100683	2.0 – 75.0 mg/l NH ₄ -N	10	Indophenol blue
163	Ammonium Test	100683	5 – 150 mg/l NH ₄ -N	10	Indophenol blue
2601	Anthocyanogenes ²⁾	AppNote	0 – 100 mg/l		Acidic hydrolysis
130	Antimony in water and wastewater	AppNote	0.10 – 8.00 mg/l Sb		Brilliant green
156	AOX Cell Test ¹⁾	100675	0.05 – 2.50 mg/l AOX	–	Oxidation to chloride
132	Arsenic Test ¹⁾	101747	0.001 – 0.100 mg/l As	10, 20	Ag-DDTC
2603	Bitterness – beer ²⁾	AppNote	1 – 80 BU		UV absorption
2604	Bitterness – wort ²⁾	AppNote	1 – 120 BU		UV absorption
157	BOD Cell Test ¹⁾	100687	0.5 – 3,000 mg/l BOD	–	Modification of Winkler method
164	Boron Cell Test ¹⁾	100826	0.05 – 2.00 mg/l B	–	Azomethine H
46	Boron Test ¹⁾	114839	0.050 – 0.800 mg/l B	10	Rosocyanine

¹⁾ turbidity correction possible | ²⁾ the analytical procedure for this method is given in the manual of the "Brewery Methods Prove"
³⁾ individual calibration necessary | ⁴⁾ 100 mm cuvette use only for SQ Prove 600
⁵⁾ incapable measurement with SQ Prove 100 | ⁶⁾ difference in test procedure, see pagacke insert



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Overview of preprogrammed Methods and AppNotes

Meth. No.	Determination	Art. No.	Total range	Cell size [mm]	Method
195	Bromate in water and drinking water	AppNote	0.003 – 0.120 mg/l BrO ₃	–	3,3'-Dimethylnaphtidine
146	Bromine Test ¹⁾	100605	0.020 – 10.00 mg/l Br ₂	10	S-DPD
157	BSB Cell Test ¹⁾	100687	0.5 – 3,000 mg/l BSB	–	Modification of Winkler method
67	Cadmium Cell Test	114834	0.025 – 1.000 mg/l Cd	–	Cadion derivate
183	Cadmium Test	101745	0.0020 – 0.500 mg/l Cd	10, 20, 50	Cadion derivate
165	Calcium Cell Test ¹⁾	100858	10 – 250 mg/l Ca	–	Phthalein purple
42	Calcium Test ^{1), 6)}	114815	5 – 160 mg/l Ca	10, 20	Glyoxal-bis-hydroxyanil
125	Calcium Test sensitive ^{1), 6)}	114815	1.0 – 15.0 mg/l Ca	10	Glyoxal-bis-hydroxyanil
304	Calcium Test ³⁾	100049	0.20 – 4.00 mg/l Ca	10	Phthalein derivate
Carbohydrates, total – see Total Carbohydrates					
2523	Carotene (palm oil)	AppNote	10 – 7,500 mg/kg		Inherent color
95	Chloride Cell Test ¹⁾	114730	5 – 125 mg/l Cl	–	Iron(III)-thiocyanat
110	Chloride Test ^{1), 6)}	114897	2.5 – 25.0 mg/l Cl	10	Iron(III)-thiocyanat
63	Chloride Test ^{1), 6)}	114897	10 – 250 mg/l Cl	10	Iron(III)-thiocyanat
218	Chloride Cell Test ¹⁾	101804	0.5 – 15.0 mg/l Cl	–	Iron(III)-thiocyanat
219	Chloride Test ¹⁾	101807	0.10 – 5.00 mg/l Cl	50	Iron(III)-thiocyanat
141	Chlorine Cell Test ¹⁾ (free chlorine)	100595	0.03 – 6.00 mg/l Cl ₂	–	S-DPD
142	Chlorine Cell Test ¹⁾ (free chlorine + total chlorine)	100597	0.03 – 6.00 mg/l Cl ₂	–	S-DPD
143	Chlorine Test ¹⁾ (free chlorine)	100598	0.010 – 6.00 mg/l Cl ₂	10, 20, 50	S-DPD
145	Chlorine Test ¹⁾ (total chlorine)	100602	0.010 – 6.00 mg/l Cl ₂	10, 20, 50	S-DPD
144	Chlorine Test ¹⁾ (free chlorine + total chlorine)	100599	0.010 – 6.00 mg/l Cl ₂	10, 20, 50	S-DPD
194	Chlorine Cell Test ¹⁾ (free chlorine + total chlorine)		0.03 – 6.00 mg/l Cl ₂	10	DPD
306	Chlorine Test ¹⁾ (free chlorine + total chlorine)		0.010 – 1.000 mg/l Cl ₂	10	DPD
149	Chlorine Dioxide Test ¹⁾	100608	0.020 – 10.00 mg/l ClO ₂	10	S-DPD
2509	Chlorophyll-a (DIN/ISO)	AppNote	result in µg/l Chl-a or Phaeo		Inherent color
2504	Chlorophyll-a (APHA/ASTM)	AppNote	result in mg/m ³ Chl-a or Phaeo		Inherent color
2507	Chlorophyll-a, -b, -c (APHA/ASTM)	AppNote	result in mg/m ³ Chl-a, -b, -c		Inherent color
39	Chromate Cell Test ¹⁾	114552	0.05 – 2.00 mg/l Cr	–	Diphenylcarbazine
39	Chromate Cell Test ¹⁾ (total chromium)	114552	0.05 – 2.00 mg/l Cr	–	Peroxodisulfate oxidation / Diphenylcarbazine
40	Chromate Test ¹⁾	114758	0.010 – 3.00 mg/l Cr	10, 20, 50	Diphenylcarbazine
20	Chromium Baths	AppNote	4.0 – 400 g/l CrO ₃		Inherent color
305	Cobalt in water	AppNote	0.5 – 10.0 mg/l Co		Nitroso-R salt
31	COD Cell Test ¹⁾	114560	4.0 – 40.0 mg/l COD	–	Chromosulfuric acid oxidation / chromate determination
211	COD Cell Test ¹⁾	101796	5.0 – 80.0 mg/l COD	–	Chromosulfuric acid oxidation / chromate determination

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³⁾ individual calibration necessary | ⁴⁾ 100 mm cuvette use only for SQ Prove 600
⁵⁾ incapable measurement with SQ Prove 100 | ⁶⁾ difference in test procedure, see pagacke insert



Overview of preprogrammed Methods and AppNotes

Meth. No.	Determination	Art. No.	Total range	Cell size [mm]	Method
14	COD Cell Test ¹⁾	114540	10 – 150 mg/l COD	–	Chromosulfuric acid oxidation / chromate determination
105	COD Cell Test ¹⁾	114895	15 – 300 mg/l COD	–	Chromosulfuric acid oxidation / chromate determination
93	COD Cell Test ¹⁾	114690	50 – 500 mg/l COD	–	Chromosulfuric acid oxidation / chromate determination
23	COD Cell Test ¹⁾	114541	25 – 1,500 mg/l COD	–	Chromosulfuric acid oxidation / chromium(III) determination
94	COD Cell Test ¹⁾	114691	300 – 3,500 mg/l COD	–	Chromosulfuric acid oxidation / chromium(III) determination
24	COD Cell Test ¹⁾	114555	500 – 10,000 mg/l COD	–	Chromosulfuric acid oxidation / chromium(III) determination
209	COD Cell Test ¹⁾	101797	5,000 – 90,000 mg/l COD	–	Chromosulfuric acid oxidation / chromium(III) determination
137	COD Cell Test (Hg free) ¹⁾	109772	10 – 150 mg/l COD	–	Chromosulfuric acid oxidation / chromate determination
138	COD Cell Test (Hg free) ¹⁾	109773	100 – 1,500 mg/l COD	–	Chromosulfuric acid oxidation / chromium(III) determination
220	COD Cell Test for seawater ¹⁾	117058	5.0 – 60.0 mg/l COD	–	Chloride depletion / chromosulfuric acid oxidation / chromate determination
221	COD Cell Test for seawater ¹⁾	117059	50 – 3,000 mg/l COD	–	Chloride depletion / chromosulfuric acid oxidation / chromium(III) determination
15	Color α (436) (spectral absorptions coefficient)	AppNote	0.1 – 250 m ⁻¹		Measurement at 436 nm
61	Color α (525) (spectral absorptions coefficient)	AppNote	0.1 – 250 m ⁻¹		Measurement at 525 nm
78	Color α (620) (spectral absorptions coefficient)	AppNote	0.1 – 250 m ⁻¹		Measurement at 620 nm
303	Color (410) (EN 7887)	AppNote	2 – 2,500 mg/l Pt		Measurement at 410 nm
2602	Color – EBC ²⁾	AppNote	0.0 – 60.0 EBC Units		Inherent color
32	Color Hazen ¹⁾	AppNote	0.2 – 500 mg/l Pt/Co (Hazen)		Platinum-cobalt-Standard Method, measurement at 340 nm
179	Color Hazen ¹⁾	AppNote	0 – 1,000 mg/l Pt/Co (Hazen)		Platinum-cobalt-Standard Method, measurement at 445 nm
180	Color Hazen ¹⁾	AppNote	0 – 1,000 mg/l Pt/Co (Hazen)		Platinum-cobalt-Standard Method, measurement at 455 nm
181	Color Hazen ¹⁾	AppNote	0 – 1,000 mg/l Pt/Co (Hazen)		Platinum-cobalt-Standard Method, measurement at 465 nm

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⁵⁾ incapable measurement with SQ Prove 100 | ⁶⁾ difference in test procedure, see pagacke insert



Overview of preprogrammed Methods and AppNotes

Meth. No.	Determination	Art. No.	Total range	Cell size [mm]	Method
Color of sugar solutions – see ICUMSA Color					
2613	Copper – EBC ²⁾	AppNote	0.10 – 5.00 mg/l Cu		Cuprethol
26	Copper Cell Test ¹⁾	114553	0.05 – 8.00 mg/l Cu	–	Cuprizone
27	Copper Test ¹⁾	114767	0.02 – 6.00 mg/l Cu	10, 20, 50	Cuprizone
83	Copper Baths	AppNote	2.0 – 80.0 g/l Cu		Inherent color
228	Cyanide Cell Test ¹⁾ (free cyanide)	102531	0.010 – 0.500 mg/l CN	–	Barbituric acid + pyridinecarboxylic acid
75	Cyanide Cell Test ¹⁾ (free cyanide)	114561	0.010 – 0.500 mg/l CN	–	Barbituric acid + pyridinecarboxylic acid
75	Cyanide Cell Test ¹⁾ (readily liberated cyanide)	114561	0.010 – 0.500 mg/l CN	–	Citric acid / barbituric acid + pyridinecarboxylic acid
109	Cyanide Test ¹⁾ (free cyanide)	109701	0.0020 – 0.500 mg/l CN	10, 20, 50	Barbituric acid + pyridinecarboxylic acid
109	Cyanide Test ¹⁾ (readily liberated cyanide)	109701	0.0020 – 0.500 mg/l CN	10, 20, 50	Citric acid / barbituric acid + pyridinecarboxylic acid
210	Cyanuric Acid Test	119253	2 – 160 mg/l Cyan Acid	20	Triazine derivative
2528	delta K268 (olive oil)	AppNote	-0.10 – 1.00		UV absorption
2529	delta K270 (olive oil)	AppNote	-0.10 – 1.00		UV absorption
Diacetyl – see Vicinal Diketones					
2524	DOBI (palm oil)	AppNote	0.00 – 4.00		UV absorption
2626	Flavanoids ²⁾	AppNote	3.0 – 200.0 mg/l		4-Dimethylaminocinnam- aldehyde
215	Fluoride Cell Test ¹⁾	100809	0.10 – 1.80 mg/l F	–	Alizarin complexone
216	Fluoride Cell Test sensitive	100809	0.025 – 0.500 mg/l F	50	Alizarin complexone
166	Fluoride Test ^{1), 6)}	114598	0.10 – 2.00 mg/l F	10	Alizarin complexone
167	Fluoride Test ^{1), 6)}	114598	1.0 – 20.0 mg/l F	10	Alizarin complexone
217	Fluoride Test	100822	0.02 – 2.00 mg/l F	50	SPADNS
28	Formaldehyde Cell Test ¹⁾	114500	0.10 – 8.00 mg/l HCHO	–	Chromotropic acid
91	Formaldehyde Test ¹⁾	114678	0.02 – 8.00 mg/l HCHO	10, 20, 50	Chromotropic acid
2606	Free Amino Nitrogen beer / wort ²⁾	AppNote	0 – 400 mg/l		Ninhydrin
45	Gold Test	114821	0.5 – 12.0 mg/l Au	10	Rhodamine B
Hardness – see Total Hardness or Residual Hardness					
Hazen – see Color Hazen					
44	Hydrazine Test ¹⁾	109711	0.005 – 2.00 mg/l N ₂ H ₄	10, 20, 50	4-Dimethylaminobenz- aldehyde
99	Hydrogen Peroxide Cell Test ¹⁾	114731	2.0 – 20.0 mg/l H ₂ O ₂	–	Titanyl sulfate
128	Hydrogen Peroxide Cell Test sensitive ¹⁾	114731	0.25 – 5.00 mg/l H ₂ O ₂	50	Titanyl sulfate
198	Hydrogen Peroxide Test	118789	0.015 – 6.00 mg/l H ₂ O ₂	10, 20	Phenanthroline derivative
2548	ICUMSA Color GS1/3-7	AppNote	0 – 50,000 IU _{7,0}		Inherent color
2549	ICUMSA Color GS2/3-9	AppNote	0 – 600 IU _{7,0}		Inherent color
2550	ICUMSA Color GS2/3-10	AppNote	0 – 50 IU _{7,0}		Inherent color
2551	ICUMSA Color GS9/1/2/3-8	AppNote	0 – 20,000 IU _{7,0}		Inherent color
147	Iodine Test ¹⁾	100606	0.050 – 10.00 mg/l I ₂	10, 20, 50	S-DPD
2615	Iodine Test, photometric ²⁾	AppNote	0.00 – 0.80		Iodine
2616	Iodine Test, photometric ²⁾	AppNote	0.00 – 0.80		Iodine
33	Iodine Color Number	AppNote	0.010 – 3.00		Measurement at 340 nm
21	Iodine Color Number	AppNote	0.2 – 50.0		Measurement at 445 nm
2623	Iron – EBC ²⁾	AppNote	0.000 – 1.000 mg/l Fe		Triazine
2624	Iron – EBC ²⁾	AppNote	0.000 – 0.800 mg/l Fe		Triazine
37	Iron Cell Test	114549	0.05 – 4.00 mg/l Fe	–	Triazine

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⁵⁾ incapable measurement with SQ Prove 100 | ⁶⁾ difference in test procedure, see pagacke insert



Overview of preprogrammed Methods and AppNotes

Meth. No.	Determination	Art. No.	Total range	Cell size [mm]	Method
106	Iron Cell Test ¹⁾	114896	1.0 – 50.0 mg/l Fe (Fe(II) and Fe(III))		2,2'-Dipyridyl
38	Iron Test	114761	0.005 – 5.00 mg/l Fe	10, 20, 50, 100 ⁴⁾	Triazine
161	Iron Test ¹⁾	100796	0.010 – 5.00 mg/l Fe (Fe(II) and Fe(III))	10, 20, 50	1,10-Phenanthroline
2611	Iso-α Acids ²⁾	AppNote	0 – 60		UV absorption
2525	K232 (olive oil)	AppNote	0.00 – 4.00		UV absorption
2526	K268 (olive oil)	AppNote	0.00 – 4.00		UV absorption
2527	K270 (olive oil)	AppNote	0.00 – 4.00		UV absorption
66	Lead Cell Test ¹⁾	114833	0.10 – 5.00 mg/l Pb	–	PAR
160	Lead Test ¹⁾	109717	0.010 – 5.00 mg/l Pb	10, 20, 50	PAR
158	Magnesium Cell Test ¹⁾	100815	5.0 – 75.0 mg/l Mg	–	Phthalein purple
159	Manganese Cell Test ¹⁾	100816	0.10 – 5.00 mg/l Mn	–	Formaldoxime
19	Manganese Test ¹⁾	114770	0.010 – 10.00 mg/l Mn	10, 20, 50	Formaldoxime
226	Manganese Test ¹⁾	101846	0.005 – 2.00 mg/l Mn	10, 20, 50	PAN
135	Mercury in water and wastewater	AppNote	0.025 – 1.000 mg/l Hg		Michler's ketone
175	Molybdenum Cell Test	100860	0.02 – 1.00 mg/l Mo	–	Brompyrogallol red
206	Molybdenum Test	119252	0.5 – 45.00 mg/l Mo	20	Mercaptoacetic acid
185	Monochloramine Test	101632	0.050 – 10.00 mg/l Cl ₂	10, 20, 50	Indophenol blue
2614	Nickel – EBC ²⁾	AppNote	0.00 – 5.00 mg/l Ni		Dimethylglyoxime
17	Nickel Cell Test ¹⁾	114554	0.10 – 6.00 mg/l Ni	–	Dimethylglyoxime
18	Nickel Test ¹⁾	114785	0.02 – 5.00 mg/l Ni	10, 20, 50	Dimethylglyoxime
57	Nickel Bath	AppNote	2.0 – 120 g/l Ni		Inherent color
59	Nitrate Cell Test ¹⁾	114542	0.5 – 18.0 mg/l NO ₃ -N	–	Nitrospectral
30	Nitrate Cell Test ¹⁾	114563	0.5 – 25.0 mg/l NO ₃ -N	–	2,6-Dimethylphenol
107	Nitrate Cell Test ¹⁾	114764	1.0 – 50.0 mg/l NO ₃ -N	–	2,6-Dimethylphenol
151	Nitrate Cell Test ¹⁾	100614	23 – 225 mg/l NO ₃ -N	–	2,6-Dimethylphenol
60	Nitrate Test ¹⁾	114773	0.2 – 20.0 mg/l NO ₃ -N	10, 20	Nitrospectral
139	Nitrate Cell Test ¹⁾	109713	0.10 – 25.0 mg/l NO ₃ -N	10, 20, 50	2,6-Dimethylphenol
72	Nitrate Cell Test in seawater ¹⁾	114556	0.10 – 3.00 mg/l NO ₃ -N	–	Resorcine
140	Nitrate Test in seawater ¹⁾	114942	0.2 – 17.0 mg/l NO ₃ -N	10	Resorcine
227	Nitrate Test	101842	0.3 – 30.0 mg/l NO ₃ -N	50	Reduction / Benzoic acid derivative
2503	Nitrate (UV)	AppNote	0.0 – 7.0 mg/l NO ₃ -N		Direct measurement in the UV range
35	Nitrite Cell Test ¹⁾	114547	0.010 – 0.700 mg/l NO ₂ -N	–	Griess reaction
197	Nitrite Cell Test ¹⁾	100609	1.0 – 90.0 mg/l NO ₂ -N	–	Iron(II)-ethylenediammonium sulfate
36	Nitrite Test ¹⁾	114776	0.002 – 1.00 mg/l NO ₂ -N	10, 20, 50	Griess reaction
68	Nitrogen (total) Cell Test	114537	0.5 – 15.0 mg/l N	–	Peroxodisulfate oxidation / Nitrospectral
153	Nitrogen (total) Cell Test	100613	0.5 – 15.0 mg/l N	–	Peroxodisulfate oxidation / 2,6-Dimethylphenol
108	Nitrogen (total) Cell Test	114763	10 – 150 mg/l N	–	Peroxodisulfate oxidation / 2,6-Dimethylphenol
Oils – see K (olive oil), delta K (olive oil), Carotene (palm oil) or DOBI (palm oil)					
92	Oxygen Cell Test ¹⁾	114694	0.5 – 12.0 mg/l O ₂	–	Modification of Winkler method
207	Oxygen Scavengers Test	119251	0.020 – 0.500 mg/l DEHA	20	FerroZine®
148	Ozone Test ¹⁾	100607	0.010 – 4.00 mg/l O ₃	10, 20, 50	S-DPD
133	Palladium in water and wastewater	AppNote	0.05 – 1.25 mg/l Pd		Thio-Michler's ketone

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Meth. No.	Determination	Art. No.	Total range	Cell size [mm]	Method
2,3-Pentandion – see Vicinal Diketones					
186	pH Cell Test	101744	6.4 – 8.8	–	Phenol red
Phaeophytin (DIN/ISO) / (APHA/ASTM) – see Chlorophyll-a (DIN/ISO) or (APHA/ASTM)					
73	Phenol Cell Test ¹⁾	114551	0.10 – 2.50 mg/l C ₆ H ₅ OH	–	MBTH
176	Phenol Test ^{1), 6)}	100856	0.025 – 5.00 mg/l C ₆ H ₅ OH	10, 20, 50	Aminoantipyrine
177	Phenol Test ^{1), 6)}	100856	0.002 – 0.100 mg/l C ₆ H ₅ OH	20	Aminoantipyrine by extraction
Phenols, steam-volatile – see steam-volatiles Phenols					
212	Phosphate Cell Test	100474	0.05 – 5.00 mg/l PO ₄ -P	–	Phosphormolybdenum blue
55	Phosphate Cell Test	114543	0.05 – 5.00 mg/l PO ₄ -P	–	Phosphormolybdenum blue
55	Phosphate Cell Test (total phosphorus)	114543	0.05 – 5.00 mg/l P	–	Peroxodisulfate oxidation / phosphormolybdenum blue
213	Phosphate Cell Test	100475	0.5 – 25.0 mg/l PO ₄ -P	–	Phosphormolybdenum blue
86	Phosphate Cell Test	114729	0.5 – 25.0 mg/l PO ₄ -P	–	Phosphormolybdenum blue
86	Phosphate Cell Test (total phosphorus)	114729	0.5 – 25.0 mg/l P	–	Peroxodisulfate oxidation / phosphormolybdenum blue
152	Phosphate Cell Test	100616	3.0 – 100.0 mg/l PO ₄ -P	–	Phosphormolybdenum blue
214	Phosphate Cell Test	100673	3.0 – 100.0 mg/l PO ₄ -P	–	Phosphormolybdenum blue
214	Phosphate Cell Test (total phosphorus)	100673	3.0 – 100.0 mg/l P	–	Peroxodisulfate oxidation / phosphormolybdenum blue
56	Phosphate Test	114848	0.010 – 5.00 mg/l PO ₄ -P	10, 20, 50, 100 ⁴⁾	Phosphormolybdenum blue
162	Phosphate Test	100798	1.0 – 100.0 mg/l PO ₄ -P	10	Phosphormolybdenum blue
69	Phosphate Cell Test ¹⁾	114546	0.5 – 25.0 mg/l PO ₄ -P	–	Vanadatомolybdate
70	Phosphate Test ¹⁾	114842	0.5 – 30.0 mg/l PO ₄ -P	10, 20	Vanadatомolybdate
Photometric iodine test – see Iodine Test, photometric					
134	Platinum in water and wastewater	AppNote	0.10 – 1.25 mg/l Pt		o-Phenylendiamine
103	Potassium Cell Test	114562	5.0 – 50.0 mg/l K	–	Kalignost®, turbidimetric
150	Potassium Cell Test	100615	30 – 300 mg/l K	–	Kalignost®, turbidimetric
2617	Reducing Power ²⁾	AppNote	0 – 100 %		DPI
98	Residual Hardness Cell Test ¹⁾	114683	0.50 – 5.00 mg/l Ca	–	Phthalein
79	Silicate (Silicic acid) Test	114794	0.11 – 10.70 mg/l SiO ₂	10, 20	Silicomolybdenum blue
81	Silicate (Silicic acid) Test	114794	0.011 – 1.600 mg/l SiO ₂	50	Silicomolybdenum blue
169	Silicate (Silicic acid) Test ^{1), 6)}	100857	1.1 – 107.0 mg/l SiO ₂	10	Molybdatosilicate
171	Silicate (Silicic acid) Test ^{1), 6)}	100857	11 – 1070 mg/l SiO ₂	10	Molybdatosilicate
225	Silicate (Silicic acid) Test	101813	0.0005 – 0.5000 mg/l SiO ₂	50, 100 ⁴⁾	Silicomolybdenum blue
47	Silver Test ¹⁾	114831	0.25 – 3.00 mg/l Ag	10, 20	Eosine / 1,10-Phenanthroline
168	Sodium Cell Test in nutrient solutions ¹⁾	100885	10 – 300 mg/l Na	–	indirectly as chloride
300	Spectral Absorption ⁵⁾ Coefficient α(254)	AppNote	0.5 – 250 m ⁻¹		Measurement at 254 nm
302	Spectral Absorption Coefficient α(436)	AppNote	0.5 – 250 m ⁻¹		Measurement at 436 nm
301	Spectral Attenuation Coefficient μ(254) ^{1), 5)}	AppNote	0.5 – 250 m ⁻¹		Measurement at 254 nm
2621	Steam-volatiles Phenols – malt ²⁾	AppNote	0.00 – 3.00 mg/kg		Aminoantipyrine by extraction
2621	Steam-volatiles Phenols – beer ²⁾	AppNote	0.00 – 0.30 mg/kg		Aminoantipyrine by extraction
2622	Steam-volatiles Phenols – malt ²⁾	AppNote	0.00 – 3.00 mg/kg		Aminoantipyrine by extraction
2622	Steam-volatiles Phenols – beer ²⁾	AppNote	0.00 – 0.30 mg/kg		Aminoantipyrine by extraction

¹⁾ turbidity correction possible | ²⁾ the analytical procedure for this method is given in the manual of the "Brewery Methods Prove"
³⁾ individual calibration necessary | ⁴⁾ 100 mm cuvette use only for SQ Prove 600
⁵⁾ incapable measurement with SQ Prove 100 | ⁶⁾ difference in test procedure, see pagacke insert



Overview of preprogrammed Methods and AppNotes

Meth. No.	Determination	Art. No.	Total range	Cell size [mm]	Method
Sugar solutions, Color of – see ICUMSA Color					
229	Sulfate Cell Test	102532	1.0 – 50.0 mg/l SO ₄	–	Bariumsulfate, turbidimetric
64	Sulfate Cell Test	114548	5 – 250 mg/l SO ₄	–	Bariumsulfate, turbidimetric
154	Sulfate Cell Test	100617	50 – 500 mg/l SO ₄	–	Bariumsulfate, turbidimetric
82	Sulfate Cell Test	114564	100 – 1,000 mg/l SO ₄	–	Bariumsulfate, turbidimetric
65	Sulfate Test ¹⁾	114791	25 – 300 mg/l SO ₄	10	Tannin
224	Sulfate Test	101812	0.50 – 50.0 mg/l SO ₄	10, 20, 50	Bariumsulfate, turbidimetric
230	Sulfate Test	102537	5 – 300 mg/l SO ₄	–	Bariumsulfate, turbidimetric
80	Sulfide Test ¹⁾	114779	0.020 – 1.50 mg/l S	10, 20, 50	Dimethyl-p- phenylendiamin
71	Sulfite Cell Test ¹⁾	114394	1.0 – 20.0 mg/l SO ₃	–	Ellman's reagent
127	Sulfite Cell Test sensitive ¹⁾	114394	0.05 – 3.00 mg/l SO ₃	50	Ellman's reagent
187	Sulfite Test ¹⁾	101746	1.0 – 60.0 mg/l SO ₃	10	Ellman's reagent
231	Surfactants (anionic) Cell Test	102552	0.05 – 2.00 mg/l MBAS (methylene blue active substances)	–	Methylene blue
192	Surfactants (cationic) Cell Test ¹⁾	101764	0.05 – 1.50 mg/l k-Ten	–	Disulfine blue
193	Surfactants (nonionic) Cell Test ¹⁾	101787	0.10 – 7.50 mg/l n-Ten	–	TBPE
182	Suspended Solids	AppNote	25 – 750 mg/l SusS		
2619	Thiobarbituric Acid Number ²⁾	AppNote	0 – 250		Thiobarbituric acid
100	Tin Cell Test ¹⁾	114622	0.10 – 2.50 mg/l Sn	–	Pyrocatechol violet
172	TOC Cell Test	114878	5.0 – 80.0 mg/l TOC	–	Peroxodisulfate oxidation / Indicator
173	TOC Cell Test	114879	50 – 800 mg/l TOC	–	Peroxodisulfate oxidation / Indicator
2625	Total Carbohydrates ²⁾	AppNote	0.000 – 6.000 g/100 ml		Anthrone
178	Total Hardness Cell Test ¹⁾	100961	5 – 215 mg/l Ca	–	Phthalein purple
2610	Total Polyphenols ²⁾	AppNote	1 – 800 mg/l		Iron(III)
77	Turbidity	AppNote	1 – 100 FAU		Measurement at 550 nm
2620	Vicinal Diketones ²⁾	AppNote	0.00 – 1.00 mg/kg		Phenylendiamin
222	Volatile Organic Acids Cell Test ¹⁾	101749	50 – 3,000 mg/l CH ₃ COOH	–	Esterification
223	Volatile Organic Acids Test ¹⁾	101809	50 – 3,000 mg/l CH ₃ COOH	–	Esterification
Water hardness – see Total Hardness or Residual Hardness					
174	Zinc Cell Test	100861	0.025 – 1.000 mg/l Zn		PAR
74	Zinc Cell Test	114566	0.20 – 5.00 mg/l Zn	–	PAR
41	Zinc Test ¹⁾	114832	0.05 – 2.50 mg/l Zn	10	Cl-PAN

¹⁾ turbidity correction possible | ²⁾ the analytical procedure for this method is given in the manual of the "Brewery Methods Prove"
³⁾ individual calibration necessary | ⁴⁾ 100 mm cuvette use only for SQ Prove 600
⁵⁾ incapable measurement with SQ Prove 100 | ⁶⁾ difference in test procedure, see pagacke insert



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