

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 package insert



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 | – | Diphenylcarbazide |
| 39 | Chromate Cell Test ¹⁾ (total chromium) | 114552 | 0.05 – 2.00 mg/l Cr | – | Peroxodisulfate oxidation / Diphenylcarbazide |
| 40 | Chromate Test ¹⁾ | 114758 | 0.010 – 3.00 mg/l Cr | 10, 20, 50 | Diphenylcarbazide |
| 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 |

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 |
|-----------|---|----------|------------------------------|----------------|--|
| 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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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 package 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-Dimethylaminocinnamaldehyde |
| 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-Dimethylaminobenzaldehyde |
| 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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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 |
|--|---|----------|---|-------------------------------|--|
| 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 | – | Formalldoxime |
| 19 | Manganese Test ¹⁾ | 114770 | 0.010 – 10.00 mg/l Mn | 10, 20, 50 | Formalldoxime |
| 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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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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| 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 | CI-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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