Spectroquant® Test Kits

Parameters A

	Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
A	Absorbance	-3.300 – 3.300 A	-0.300 – 3.000 A	-2.600 – 2.600 A	-2.600 – 2.600 A	–	–	
	Acid Capacity Cell Test	0.40 – 8.00 mmol/L	0.40 – 8.00 mmol/L	0.40 – 8.00 mmol/L	0.40 – 8.00 mmol/L	$CaCO_3$	120	**1.01758.0001**
	to pH 4.3 (total alkalinity) [A)]	20 – 400	20 – 400	20 – 400	20 – 400			
	ADMI Color measurement							
	Alkalinity (total)							
	Aluminium Cell Test	0.02 – 0.50	0.02 – 0.50	0.05 – 0.50	0.05 – 0.50	Al	25	1.00594.0001
	Aluminium Test	0.020 – 1.20	0.020 – 1.20	20 – 700 µg/L	20 – 700 µg/L	Al	350	**1.14825.0001**
	Ammonia, free	0.000 – 3.0	–	–	–	NH_3-N	–	–
		0.000 – 3.65				NH_3		
USEPA approved	Ammonium Cell Test [B,3)]	0.010 – 2.000	0.010 – 2.000	10 – 2.000 µg/L	10 – 2.000 µg/L	NH_4-N	25	1.14739.0001
		0.013 – 2.571	**0.01 – 2.58**	10 – 2.576 µg/L	10 – 2.576 µg/L	NH_4		
		0.010 – 2.000				NH_3-N		
		0.012 – 2.432				NH_3		
USEPA approved	Ammonium Test [B,3)]	0.010 – 3.00	0.010 – 3.00 •	0.02 – 1.30	0.02 – 1.30	NH_4-N	250	1.14752.0002
		0.013 – 3.86	**0.013 – 3.86** •	0.03 – 1.67	0.03 – 1.67	NH_4	500	1.14752.0001
		0.010 – 3.00				NH_3-N		
		0.016 – 3.65				NH_3		
USEPA approved	Ammonium Cell Test [B,3)]	**0.20 – 8.00**	**0.20 – 8.00**	**0.20 – 8.00**	**0.20 – 8.00**	NH_4-N	25	**1.14558.0001**
		0.26 – 10.30	0.26 – 10.30	0.26 – 10.30	0.26 – 10.30	NH_4		
		0.20 – 8.00				NH_3-N		
		0.24 – 9.73				NH_3		
USEPA approved	Ammonium Cell Test [B,3)]	0.5 – 16.0	0.5 – 16.0	–	–	NH_4-N	25	1.14544.0001
		0.6 – 20.6	0.6 – 20.6			NH_4		
		0.5 – 16.0				NH_3-N		
		0.6 – 19.5				NH_3		
USEPA approved	Ammonium Test [B,3)]	2.0 – 150	2.0 – 150 •	1.0 – 50.0	1.0 – 50.0	NH_4-N	100	**1.00683.0001**
		2.6 – 193	2.6 – 193 •	1.3 – 64.4	1.3 – 64.4	NH_4		
		2.0 – 150				NH_3-N		
		2.4 – 182				NH_3		
USEPA approved	Ammonium Cell Test [B,3)]	**4.0 – 80.0**	**4.0 – 80.0**	**4.0 – 80.0**	**4.0 – 80.0**	NH_4-N	25	1.14559.0001
		5.2 – 103.0	5.2 – 103.0	5.2 – 103.0	5.2 – 103.0	NH_4		
		4.0 – 80.0				NH_3-N		
		4.9 – 97.3				NH_3		
	Antimony	**0.10 – 8.00**	**0.10 – 8.00**	–	–	Sb	–	–
	AOX Cell Test	0.05 – 2.50	0.05 – 2.50	0.05 – 2.50	0.05 – 2.50	AOX	25	1.00675.0001
	AOX Sample Preparation Set	–	–	–	–	–	25	1.00677.0001
	AOX Enrichment Set	–	–	–	–	–	2	**1.00678.0001**

A. The cell test contains three 16 mm cells with a bar-code label. After measurement, the cells can be emptied and cleaned for subsequent measurements. | B. This method is officially recognized by the USEPA as an alternative method for the investigation of 1. wastewater, 2. drinking water 3. drinking water and wastewater. | • Only with NOVA 60

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Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
own coloring	physical measurement	-	10, 20, 50	–	
Indicator	–	4.0 + 1.0 + 0.5	–	±0.29 mmol/L	2, 5, 9, 10, 11, 13, 15, 18
	see Color, ADMI				
	see Acid Capacity Cell Tests to pH 4.3				
Chromazurol S	analogous APHA 3500-Al B, DIN ISO 10566	0.25 + 6.0	–	±0.02	1, 6, 8, 9, 11, 13, 15, 16, 17, 18
Chromazurol S	analogous APHA 3500-Al B, DIN ISO 10566	0.25 + 1.2 + 5.0	10, 20, 50	±0.009	1, 6, 9, 11, 13, 15, 16, 17, 18
–	Application, measurement of free ammonia under consideration of the pH and temperature of the sample after spectrophotometric determination of the ammonium content, additionally required 1.14752	0.6 + 5.0	10, 20, 50	–	2, 9, 13, 18
Indophenol blue	analogous EPA 350.1, APHA 4500-NH_3 F, ISO 7150-1, DIN 38406-5	5.0	–	±0.050	1, 2, 5, 9, 11, 12, 13, 15, 17, 18
Indophenol blue	analogous EPA 350.1, APHA 4500-NH_3 F, ISO 7150-1, DIN 38406-5	0.6 + 5.0	10, 20, 50	±0.016	1, 2, 5, 9, 11, 12, 13, 15, 16, 17, 18
Indophenol blue	analogous EPA 350.1, APHA 4500-NH_3 F, ISO 7150-1, DIN 38406-5	1.0	–	±0.19	1, 2, 5, 6, 8, 9, 11, 12, 13, 15, 16, 18
Indophenol blue	analogous EPA 350.1, APHA 4500-NH_3 F, ISO 7150-1, DIN 38406-5	0.5	–	±0.4	1, 6, 8, 11, 13, 16, 18
Indophenol blue	analogous EPA 350.1, APHA 4500-NH_3 F, ISO 7150-1, DIN 38406-5	0.1 + 0.2 + 5.0	10	±1.7	1, 4, 8, 9, 12, 13, 16, 18
Indophenol blue	analogous EPA 350.1, APHA 4500-NH_3 F, ISO 7150-1, DIN 38406-5	0.1	–	±1.9	1, 4, 8, 12, 13, 16, 18
Brillant green	Application, see more information in Prove and NOVA manual	4.0 + 1.0 + 5.0	10	–	11, 18
Iron(III)-thiocyanate	adsorption analogous EN ISO 9562	0.2 + 1.0 + 7.0	–	±0.20	5, 8, 9, 10,11, 13, 15, 18
–	additionally required for AOX measurement	–	–	–	
–	for multiple use, additionally required for AOX measurement	–	–	–	

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater

Spectroquant® Test Kits

Parameters A-C

	Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
A	AOX Standard 0.2 – 2.0 mg/L	–	–	–	–	–	8 – 16	1.00680.0001
	Arsenic Test	0.001 – 0.100	0.001 – 0.100 •	5 – 100 µg/L	5 – 100 µg/L	As	30	1.01747.0001
	Arsenic reagent 2: Sulfuric acid 95 – 97 % for analysis EMSURE® ISO	–	–	–	–	–	50	1.00731.1000
	Arsenic reagent 7: Zinc granular for analysis, particle size about 3 – 8 mm EMSURE® ISO	–	–	–	–	–	27	1.08780.0500
	Absorption Tube for Arsenic with ground joint NS29	–	–	–	–	–	1	1.73501.0001
B	BOD Cell Test [A]	0.5 – 3000	0.5 – 3000	0.5 – 3000	0.5 – 3000	BOD	50	1.00687.0001
	BOD Nutrient Salt Mixture (with allyl thiourea)	–	–	–	–	–	12 L	1.00688.0001
	BOD (Oxygen) Reaction bottle	–	–	–	–	–	1	1.14663.0001
	BOD Standard 210 ±20 mg/L	–	–	–	–	–	10 L	1.00718.0001
	Boron Test	0.050 – 0.800	0.050 – 0.800	–	–	B	60	1.14839.0001
	Boron Cell Test	0.05 – 2.00	0.05 – 2.00	0.05 – 2.00	0.05 – 2.00	B	25	1.00826.0001
	Bromate	0.5 – 200 µg/L [D] 1.0 – 200 µg/L [E]	0.003 – 0.120	–	–	BrO_3	–	–
	Bromine Test	0.020 – 10.00	0.020 – 10.00	0.10 – 5.00	0.10 – 5.00	Br_2	200	1.00605.0001
C	Cadmium Test [C]	0.0020 – 0.500	0.0020 – 0.500 •	5 – 500 µg/L	5 – 500 µg/L	Cd	55	1.01745.0001
	Cadmium Cell Test [C]	0.025 – 1.000	0.025 – 1.000	25 – 1.000 µg/L	25 – 1.000 µg/L	Cd	25	1.14834.0001
	Calcium Test	0.20 – 4.00	0.20 – 4.00	–	–	Ca	100	1.00049.0001
	Calcium Test	1.0 – 15.0 1.4 – 21.0 2.5 – 37.5 5 – 160 7 – 224 12 – 400	1.0 – 15.0 1.4 – 21.0 2.5 – 37.5 5 – 160 7 – 224 12 – 400	5 – 160 7 – 224 13 – 400	5 – 160 7 – 224 13 – 400	Ca CaO $CaCO_3$ Ca CaO $CaCO_3$	100	1.14815.0001

A. The cell test contains three 16 mm cells with a bar-code label. After measurement, the cells can be emptied and cleaned for subsequent measurements. | C. For determination of total content of this parameter, use one of the Crack Sets before the photometric procedure, see page 51. | D. With Prove 600. | E. With Prove 100 and 300. | • Only with NOVA 60

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Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
–	for 8 – 16 quality tests, analogous DIN EN ISO 9562	5.0 / 10.0	–	–	5, 8, 9, 10, 11, 13, 15, 18
Silver DDTC	analogous EPA 206.4, APHA 3500-As B, ASTM D2972-08A	1.0 + 5.0 + 20 (+ 350)	10, 20	±0.003	5, 8, 9, 10, 11, 13, 15, 18
–	additionally required for Arsenic measurement	–	–	–	
–	additionally required for Arsenic measurement	–	–	–	
–	for multiple use, additionally required for Arsenic measurement	–	–	–	
mod. Winkler method	–	–	–	±0.5	2, 8, 9, 10, 11, 13, 16, 18
–	for 12 x 1 L nutrient salt solution, additionally required for BOD measurement, anal. DIN EN 1899	20	–	–	
–	4 bottles are necessary for 1 determination, 6 for 2, 8 for 3 etc.	–	–	–	
–	for 10 x 1 L standard solution, analogous DIN EN 1899	–	–	–	
Rosocyanine	analogous EPA 212.3, ASTM D3082-09, APHA 4500-B B	0.5 + 0.8 + 1.0 + 1.5 + 5.0 + 6.0	10	±0.030	1, 9, 11, 13, 15, 18
Azomethine H	analogous DIN 38405-17	1.0 + 4.0	–	±0.09	1, 9, 11, 13, 15, 16, 18
3,3'- Dimethyl-naphtidine	Application, see more information in Prove and NOVA manual	10 + 0.10 + 0.20	50, 100		7, 9, 13, 15
DPD	–	10	10, 20, 50	±0.047	5, 7, 9, 17, 18
Cadion derivative	–	0.2 + 1.0 + 10	10, 20, 50	±0.0039	5, 8, 9, 10, 11, 13, 15, 18
Cadion derivative	–	0.2 + 5.0	–	±0.025	5, 8, 9, 10, 11, 13, 15, 18
Phthalein derivate	–	0.5 + 5.0	10	±0.11	2, 3, 5, 9, 11, 12, 13
Glyoxalbis-hydroxyanil	for determinations in the low measuring range see manual NOVA / Prove	0.5 + 5.0	10	±1.8	1, 2, 5, 6, 9, 13, 15, 16,
		0.10 + 5.0	10, 20	±3	

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater

Spectroquant® Test Kits

Parameters C

	Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
	Calcium Cell Test	10 – 250 14 – 350 25 – 624	10 – 250 14 – 350 25 – 624	10 – 250 14 – 350 25 – 625	10 – 250 14 – 350 25 – 625	Ca CaO $CaCO_3$	25	1.00858.0001
	Carbohydrazide							
	Chloride Test	0.10 – 5.00	0.10 – 5.00	0.50 – 5.00	0.50 – 5.00	Cl	100	1.01807.0001
	Chloride Cell Test	0.5 – 15.0	0.5 – 15.0	0.5 – 15.0	0.5 – 15.0	Cl	25	1.01804.0001
	Chloride Test	2.5 – 250	2.5 – 250 •	10 – 250	10 – 250	Cl	100 175	1.14897.0001 1.14897.0002
	Chloride Cell Test	5 – 125	5 – 125	5 – 125	5 – 125	Cl	25	1.14730.0001
USEPA approved	Chlorine Test (free chlorine) B.2)	0.010 – 6.00	0.010 – 6.00 •	0.02 – 6.00	0.02 – 6.00	Cl_2	200 1,200	1.00598.0002 1.00598.0001
USEPA approved	Chlorine Cell Test A) (free chlorine) B.2)	0.03 – 6.00	0.03 – 6.00	0.05 – 5.00	0.05 – 5.00	Cl_2	200	1.00595.0001
USEPA approved	Chlorine Test (total chlorine) B.3)	0.010 – 6.00	0.010 – 6.00 •	0.02 – 6.00	0.02 – 6.00	Cl_2	200 1200	1.00602.0001 1.00602.0002
USEPA approved	Chlorine Test 100 tests free chlorine + 100 tests chlorine (total) B.3)	0.010 – 6.00	0.010 – 6.00 •	0.02 – 6.00	0.02 – 6.00	Cl_2	200	1.00599.0001
USEPA approved	Chlorine Cell Test A) 100 tests free chlorine + 100 tests chlorine (total) B.3)	0.03 – 6.00	0.03 – 6.00	0.05 – 5.00	0.05 – 5.00	Cl_2	200	1.00597.0001
	Chlorine Reagent Cl_2-1 (liquid) F)	0.03 – 6.00	0.03 – 6.00	0.02 – 6.00	0.02 – 6.00	Cl_2	200	1.00086.0001
	Chlorine Reagent Cl_2-2 (liquid) F)	0.03 – 6.00	0.03 – 6.00	0.02 – 6.00	0.02 – 6.00	Cl_2	400	1.00087.0001
	Chlorine Reagent Cl_2-3 (liquid) F)	0.03 – 6.00	0.03 – 6.00	0.02 – 6.00	0.02 – 6.00	Cl_2	600	1.00088.0001
	Cells and accessories for the photometric chlorine measurement with liquid reagents 1.00086, 1.00087 and 1.00088	–	–	–	–	Cl_2	25	1.00089.0001
	Chlorine Dioxide Test	0.020 – 10.00	0.020 – 10.00 •	0.05 – 10.00	0.05 – 10.00	ClO_2	200	1.00608.0001
	Chlorophyll-a and Phaeophytin-a	–	–	–	–	Chl-a Phaeo	–	–
	Chlorophyll-a, -b, -c	–	–	–	–	Chl-a Chl-b Chl-c	–	–

A. The cell test contains three 16 mm cells with a bar-code label. After measurement, the cells can be emptied and cleaned for subsequent measurements. | B. This method is officially recognized by the USEPA as an alternative method for the investigation of 1. wastewater, 2. drinking water 3. drinking water and wastewater. | F. Combination for free or total chlorine, see comment cells and accessories Ord. No. 1.00089.0001. | • Only with NOVA 60

drinking water

Check limits according to WHO, EU and USEPA regulations on page 56

Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
Phthalein complexone	–	0.5 + 1.0	–	±9	1, 2, 5, 6, 9, 13, 15
	see Oxygen Scavengers Test				
Iron(III)-thiocyanate	analogous EPA 325.1, APHA 4500-Cl^- E	0.20 + 10	50	±0.10	2, 5, 6, 9, 12, 13, 15, 18
Iron(III)-thiocyanate	analogous EPA 325.1, APHA 4500-Cl^- E	0.25 + 10	–	±0.3	2, 5, 6, 9, 12, 13, 15, 18
Iron(III)-thiocyanate	analogous EPA 325.1, APHA 4500-Cl^- E	1.0 + 5.0 + 0.5 + 2.5	10	±1.0	1, 2, 5, 6, 8, 9, 10, 12, 13, 15, 16, 18
Iron(III)-thiocyanate	analogous EPA 325.1, APHA 4500-Cl^- E	0.5 + 1.0	–	±5	1, 2, 5, 6, 8, 9, 10, 12, 13, 15, 16, 18
DPD	analogous EPA 330.5, APHA 4500-Cl_2 G, DIN EN ISO 7393-2	10	10, 20, 50	±0.034	2, 5, 7, 9, 13, 17, 18
DPD	analogous EPA 330.5, APHA 4500-Cl_2 G, DIN EN ISO 7393-2	5.0	–	±0.15	2, 5, 7, 9, 13, 17, 18
DPD	analogous EPA 330.5, APHA 4500-Cl_2 G, DIN EN ISO 7393-2	10	10, 20, 50	±0.032	2, 5, 7, 9, 13, 17, 18
DPD	analogous EPA 330.5, APHA 4500-Cl_2 G, DIN EN ISO 7393-2	10	10, 20, 50	±0.032	2, 5, 7, 9, 13, 17, 18
DPD	analogous EPA 330.5, APHA 4500-Cl_2 G, DIN EN ISO 7393-2	5.0	–	±0.11	2, 5, 7, 9, 13, 17, 18
DPD	analogous EPA 330.5, APHA 4500-Cl_2 G, DIN EN ISO 7393-2	10	16, 50	±0.036	2, 5, 7, 9, 13, 17, 18
DPD	analogous EPA 330.5, APHA 4500-Cl_2 G, DIN EN ISO 7393-2	10	16, 50	±0.036	2, 5, 7, 9, 13, 17, 18
DPD	analogous EPA 330.5, APHA 4500-Cl_2 G, DIN EN ISO 7393-2	10	16, 50	±0.036	2, 5, 7, 9, 13, 17, 18
DPD	additionally required for Chlorine Reagent Cl_2-1, Cl_2-2, Cl_2-3 for free chlorine: Cl_2-1 and Cl_2-2 for total chlorine: Cl_2-1, Cl_2-2 and Cl_2-3 Measuring range of NOVA 30: 0.03 – 6.00 mg/L Cl_2	–	–	–	
DPD	analogous APHA 4500-ClO_2 D, DIN 38408-5	10	10, 20, 50	±0.045	5, 7, 9, 15, 17
–	Application on Prove, analogous APHA 10200 H, ASTM D3731-87, DIN 38412, ISO 10260	–	10, 20, 50	–	1, 2, 13
Trichromatic Method	Application on Prove, analogous APHA 10200 H, ASTM D3731-87	–	10, 50	–	1, 2, 13

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater

Spectroquant® Test Kits

Parameters C

	Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
C	Chromate Test [C)] for the determination of chromium (VI)	0.010 – 3.00 0.02 – 6.69	0.010 – 3.00 • 0.02 – 6.69	10 – 1,400 µg/L 22 – 3,123 µg/L	10 – 1,400 µg/L 22 – 3,123 µg/L	Cr CrO_4	250	**1.14758.0001**
USEPA approved	Chromate Cell Test for the determination of chromium (VI) and chromium (total) [B.1)]	0.05 – 2.00 0.11 – 4.46	0.05 – 2.00 0.11 – 4.46	0.05 – 2.00 0.11 – 4.46	0.05 – 2.00 0.11 – 4.46	Cr CrO_4	25	1.14552.0001
	Chromium in electroplating baths (inherent color)	4.0 – 400 g/L	4.0 – 400 g/L	–	–	CrO_3	–	–
USEPA approved	COD Cell Test [B.1)]	4.0 – 40.0	4.0 – 40.0	–	–	COD	25	1.14560.0001
USEPA approved	COD Cell Test	**5.0 – 80.0**	**5.0 – 80.0**	**5.0 – 80.0**	**5.0 – 80.0**	COD	25	1.01796.0001
USEPA approved	COD Cell Test [B.1)]	10 – 150	10 – 150	10 – 150	10 – 150	COD	25	1.14540.0001
USEPA approved	COD Cell Test [B.1)]	15 – 300	15 – 300	15 – 300	15 – 300	COD	25	**1.14895.0001**
USEPA approved	COD Cell Test [B.1)]	25 – 1,500	25 – 1,500	25 – 1,500	25 – 1,500	COD	25	1.14541.0001
USEPA approved	COD Cell Test [B.1)]	50 – 500	50 – 500	50 – 500	50 – 500	COD	25	1.14690.0001
USEPA approved	COD Cell Test [B.1)]	300 – 3,500	300 – 3,500	300 – 3,500	300 – 3,500	COD	25	1.14691.0001
USEPA approved	COD Cell Test [B.1)]	500 – 10,000	500 – 10,000	500 – 10,000	500 – 10,000	COD	25	1.14555.0001
USEPA approved	COD Cell Test	5,000 – 90,000	5,000 – 90,000	5,000 – 90,000	5,000 – 90,000	COD	25	1.01797.0001
	COD Cell Test for seawater / high chloride contents	5.0 – 60.0	5.0 – 60.0	5.0 – 60.0	5.0 – 60.0	COD	25	**1.17058.0001**
	COD Cell Test for seawater / high chloride contents	50 – 3,000	50 – 3,000	50 – 3,000	50 – 3,000	COD	25	1.17059.0001
	COD Cell Test for seawater / chloride: **Absorption tube**	–	–	–	–		1 piece	1.15955.0001
	COD Cell Test for seawater / chloride: **Sodalime**	–	–	–	–		500 g 2,500 g	1.06733.0501 1.06733.2500
	COD Cell Test for seawater / chloride: **Sulfuric Acid for COD determ.**	–	–	–	–		1 L	**1.17048.1000**

B. This method is officially recognized by the USEPA as an alternative method for the investigation of 1. wastewater, 2. drinking water 3. drinking water and wastewater. | C. For determination of total content of this parameter, use one of the Crack Sets before the photometric procedure, see page 51. | • Only with NOVA 60



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To use Spectroquant® test kits with other photometer brands, download our free programming data from:
www.service-test-kits.com

Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
Diphenylcarbazide	analogous APHA 3500-Cr B, DIN 38405-24	5.0	10, 20, 50	±0.012	2, 5, 6, 8, 9, 10, 11, 13, 14, 15, 16, 18
Diphenylcarbazide	analogous APHA 3500-Cr B, DIN 38405-24	5.0 (+10)	–	±0.04	2, 5, 6, 8, 10, 11, 13, 14, 16, 18
–	Application, see more information in Prove and NOVA manual	5.0 + 4.0	10, 20, 50	–	10
Oxidation with chromosulfuric acid, determination as chromate	analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	3.0	–	±1.5	2, 5, 6, 9, 11, 13, 15, 18
Oxidation with chromosulfuric acid, determination as chromate	analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	2.0	–	±1.8	2, 6, 5, 9, 11, 13, 15, 18
Oxidation with chromosulfuric acid, determination as chromate	analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	3.0	–	±7	2, 5, 6, 11, 13, 18
Oxidation with chromosulfuric acid, determination as chromate	analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	2.0	–	±8	2, 5, 6, 11, 13, 18
Oxidation with chromosulfuric acid, determination as chromium(III)	analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	3.0	–	±29	2, 8, 10, 11, 18
Oxidation with chromosulfuric acid, determination as chromate	analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	2.0	–	±13	2, 8, 10, 11, 18
Oxidation with chromosulfuric acid, determination as chromium(III)	analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	2.0	–	±63	8, 10, 11, 18
Oxidation with chromosulfuric acid, determination as chromium(III)	analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	1.0	–	±143	1, 3, 8, 10, 11, 12, 14, 18
Oxidation with chromosulfuric acid, determination as chromium(III)	analogous EPA 410.4, APHA 5220 D, ASTM D1252-06B, ISO 15705	0.1	–	±1,151	1, 3, 8, 10, 11, 12, 14, 16, 18
Oxidation with chromosulfuric acid, determination as chromate	chloride depletion method corresponds to DIN 38409-41-2, method corresponds to DIN ISO 15705, analogous EPA 410.4, APHA 5220 D and ASTM D1252-06 B	20 + 25 + 5.0	–	±3.0	2, 3, 4, 6, 8, 10, 11, 13, 16, 18
Oxidation with chromosulfuric acid, determination as chromium(III)	chloride depletion method corresponds to DIN 38409-41-2, method corresponds to DIN ISO 15705, analogous EPA 410.4, APHA 5220 D and ASTM D1252-06 B	20 + 25 + 3.0	–	±44	2, 3, 4, 6, 8, 10, 11, 13, 16, 18
–	additionally required for COD Cell Test for seawater / high chloride contents	–	–	–	
–	additionally required for COD Cell Test for seawater / high chloride contents	–	–	–	
–	additionally required for COD Cell Test for seawater / high chloride contents	–	–	–	

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater

Spectroquant® Test Kits

Parameters C

	Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
C	COD Cell Test (Hg free)	10 – 150	10 – 150	10 – 150	10 – 150	COD	25	1.09772.0001
	COD Cell Test (Hg free)	100 – 1.500	100 – 1.500	100 – 1.500	100 – 1.500	COD	25	1.09773.0001
	Color, ADMI	2.0 – 500	–	–	–	–	–	–
	Color, Hazen	0.2 – 500	0.2 – 500 •	–	–	Pt, Pt/Co, Hazen, CU	–	–
	Color, Hazen	0 – 1.000 (at 445, 455, 465 nm)	0 – 1.000 • (at 445 nm)	0 – 1.000 (at 430 nm)	25 – 1.000 (at 430 nm)	Pt, Pt/Co, Hazen, CU	–	–
	Color, Spectral Absorption Coefficient	0.1 – 250 m^{-1}	0.1 – 50.0 m^{-1} •	–	–	–	–	–
	Color, true color	2 – 2.500	–	–	–	Pt, Pt/Co, CU	–	–
	Copper Test [C)]	0.02 – 6.00	0.02 – 6.00 •	0.10 – 6.00	0.10 – 6.00	Cu	250	1.14767.0001
	Copper Cell Test [C)]	0.05 – 8.00	0.05 – 8.00	0.05 – 8.00	0.05 – 8.00	Cu	25	1.14553.0001
	Copper in electroplating baths (inherent color)	2.0 – 80.0 g/L	2.0 – 80.0 g/L	–	–	Cu	–	–
	Cyanide Test (free and readily liberated cyanide)	0.0020 – 0.500	0.0020 – 0.500 •	5 – 200 µg/L	5 – 200 µg/L	CN	100	1.09701.0001
USEPA approved	Cyanide Cell Test (free and readily liberated cyanide) [B.1)]	0.010 – 0.500	0.010 – 0.500	10 – 350 µg/L	10 – 350 µg/L	CN	25	1.14561.0001
	Cyanide Cell test (free cyanide)	0.010 – 0.500	0.010 – 0.500	10 – 350 µg/L	10 – 350 µg/L	CN	25	1.02531.0001
	Cyanuric Acid Test	2 – 160	2 – 160 •	2 – 160	2 – 160	Cyanuric acid	100	1.19253.0001



cyanide okay?

Need to just check free cyanide in water? Our cell tests speeds up your time to result with only 2 steps and has fewer reagents, so it lowers your costs and protects the environment.

B. This method is officially recognized by the USEPA as an alternative method for the investigation of 1. wastewater, 2. drinking water 3. drinking water and wastewater. | C. For determination of total content of this parameter, use one of the Crack Sets before the photometric procedure, see page 51. | • Only with NOVA 60

More color

Interested in color measurement?
Check our complete range of color methods
on page 48

Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
Oxidation with chromosulfuric acid, determination as chromate	–	2.0	–	±8	9, 11, 13, 18
Oxidation with chromosulfuric acid, determination as chromium(III)	–	2.0	–	±32	11, 18
own coloring	physical measurement, analogous to APHA 2120 F	–	10, 50	–	
own coloring	physical measurement, corresponds to APHA 2120 B, DIN EN ISO 6271-2, at 340 nm	–	10, 20, 50	–	
own coloring	physical measurement, corresponds to APHA 2120 B, DIN EN ISO 6271-2	–	50	–	
own coloring	physical measurement according EN ISO 7887, at 445, 525 and 620 nm with NOVA 60, at 436, 525 and 620 nm with Prove 100/300/600	–	10, 20, 50	–	
own coloring	physical measurement according EN ISO 7887, at 410 nm	–	10, 20, 50	–	
Cuprizone	–	5.0	10, 20, 50	±0.034	1, 2, 5, 6, 8, 9, 10, 11, 13, 16, 18
Cuprizone	–	5.0	–	±0.13	1, 2, 5, 6, 8, 9, 10, 11, 13, 16, 18
–	Application, see more information in Prove and NOVA manual	25 + 5.0	10, 20, 50		10
Barbituric acid, pyridine-carboxylic acid	analogous EPA 335.2, APHA 4500-CN^- E, ASTM D2036-09D, ISO 6703, DIN 38405-13	5.0 + 10	10, 20, 50	±0.0025	8, 9, 10, 11, 13, 15, 18
Barbituric acid, pyridine-carboxylic acid	analogous EPA 335.2, APHA 4500-CN^- E, ASTM D2036-09D, ISO 6703, DIN 38405-13	5.0 + 10	–	±0.013	8, 9, 10, 11, 13, 15, 18
Barbituric acid, pyridine-carboxylic acid	analogous EPA 335.2, APHA 4500-CN^- E, ASTM D2036-09D, ISO 6703, DIN 38405-13	5.0	–	±0.013	8, 9, 10, 11, 13, 15, 18
Turbidity	–	5.0	20	±5	7, 11, 17

Analyzing COD

Analyzing COD in water or wastewater?
Our nine COD cell tests cover the entire measuring range from 4.0 to 90,000 mg/L. Get fast, error-free results – without sample dilution.

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater

Spectroquant® Test Kits

Parameters D-L

	Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
D	DEHA (Diethylhydroxylamine)							
	Detergents							
F	Fluoride Cell Test	0.025 - 0.500 0.10 - 1.80	0.025 - 0.500 • 0.10 - 1.80 •	0.10 – 1.80	0.10 – 1.80	F	25	1.00809.0001
	Fluoride Test	0.02 – 2.00	0.02 – 2.00 •	0.08 – 2.00	0.08 – 2.00	F	250	1.00822.0250
	Fluoride Test	0.10 – 20.0	0.10 – 20.0 •	0.10 – 2.00	0.10 – 2.00	F	100 250	1.14598.0001 1.14598.0002
	Formaldehyde Test	0.02 – 8.00	0.02 – 8.00 •	–	–	HCHO	100	1.14678.0001
	Formaldehyde Cell Test	0.10 – 8.00	0.10 – 8.00	–	–	HCHO	25	1.14500.0001
G	Gold Test	0.5 – 12.0	0.5 – 12.0	–	–	Au	75	1.14821.0002
H	Hardness							
	Hazen Color Number (Pt/Co / APHA / Hazen)	0 – 1.000	0 – 1.000	0 – 1.000	25 – 1.000	Pt, Pt/Co, Hazen, CU		
	Hydrazine Test	0.005 – 2.00	0.005 – 2.00 •	10 – 1.200 µg/L	10 – 1.200 µg/L	N_2H_4	100	1.09711.0001
	Hydrogen Peroxide Test	0.015 – 6.00	0.015 – 6.00 •	0.02 – 5.50	0.02 – 5.50	H_2O_2	100	1.18789.0001
	Hydrogen Peroxide Cell Test	2.0 – 20.0 0.25 – 5.00	2.0 – 20.0 • 0.25 – 5.00 •	–	–	H_2O_2 H_2O_2	25	1.14731.0001
	Hydrogen sulfide							
	Hydroquinone							
I	Iodine color number	0.010 – 50.0	0.010 – 50.0 •	–	–	IFZ	–	
	Iodine Test	0.050 – 10.00	0.050 – 10.00	0.10 – 5.00	0.10 – 5.00	I_2	200	1.00606.0001
	Iron Test [C]	0.0005 – 0.0100 [D] 0.0025 – 5.00	0.005 – 5.00 •	0.01 – 2.00	0.01 – 2.00	Fe	250 1,000	1.14761.0002 1.14761.0001
	Iron Test [C]	0.010 – 5.00	0.010 – 5.00 •	0.10 – 5.00	0.10 – 5.00	Fe	150	1.00796.0001
	Iron Cell Test [C]	0.05 – 4.00	0.05 – 4.00	0.05 – 4.00	0.05 – 4.00	Fe	25	1.14549.0001
	Iron Cell Test [C]	1.0 – 50.0	1.0 – 50.0	–	–	Fe	25	1.14896.0001
	Isoascorbic acid (erythorbic acid)							
L	Lead Test [C]	0.010 – 5.00	0.010 – 5.00 •	0.05 – 5.00	0.05 – 5.00	Pb	50	1.09717.0001
	Lead Cell Test [C]	0.10 – 5.00	0.10 – 5.00	0.10 – 5.00	0.10 – 5.00	Pb	25	1.14833.0001

C. For determination of total content of this parameter, use one of the Crack Sets before the photometric procedure, see page 51. | D. With Prove 600. | • Only with NOVA 60

Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
	see Oxygen Scavengers Test				
	see Surfactants				
Alizarin complexone	analogous EPA 340.3, APHA 4500-F⁻ E for determinations in the low measuring range see manual NOVA / Prove	10 5.0	50 –	±0.024 ±0.06	9, 10, 11, 13, 15, 18
SPADNS method	analogous to APHA 4500-F⁻ D	5.0 + 1.0	50	±0.04	8, 9, 10, 11, 13, 15, 16, 18
Alizarin complexone	analogous EPA 340.3, APHA 4500-F⁻ E	0.5 + 2.0 + 5.0	10	±0.12	9, 10, 11, 13, 15, 16, 18
Chromotropic acid	–	3.0 + 4.5	10, 20, 50	±0.03	7, 9, 10, 11, 15, 18
Chromotropic acid	–	2.0	–	±0.18	7, 9, 10, 11, 15, 18
Rhodamine B	–	2.0 + 6.0	10	±0.4	10, 13, 16,
	see Total Hardness or Residual Hardness				
own coloring	see Color, Hazen	–	10, 20, 50	–	5, 9, 10, 11, 12, 13, 15, 18
4-(Dimethylamino)-benzaldehyde	analogous DIN 38413-1	2.0 + 5.0	10, 20, 50	±0.007	5
Neocuproin	–	8.0 + 0.5	10, 20	±0.033	3, 7, 9, 11, 12, 13, 14, 15
Titanyl sulfate	analogous DIN 38409-15 for determinations in the low measuring range see manual of instrument	10 10	– 50	±0.9	3, 7, 9, 11, 12, 13, 14, 15, 18
	see Sulfide				
	see Oxygen Scavengers Test				
own coloring	corresponds to DIN 6162 A	–	10, 20, 50	–	3, 11, 12
DPD	–	10	10, 20, 50	±0.060	7, 9, 17
Triazine	–	5.0	100 10, 20, 50	±0.014	1, 2, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18
1,10-Phenanthroline	differentiation between Fe(II) and Fe(III) possible, analogous APHA 3500-Fe B, DIN 38406-1	0.5 + 8.0	10, 20, 50	±0.024	1, 2, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18
Triazine	–	5.0	–	±0.06	1, 2, 6, 8, 9, 10, 11, 12, 13, 15, 16, 18
2,2'-Bipyridine	differentiation between Fe(II) and Fe(III) possible	1.0	–	±0.9	6, 8, 10, 11, 13, 18
	see Oxygen Scavengers Test				
PAR	–	0.5 + 8.0	10, 20, 50	±0.028	2, 5, 8, 9, 10, 11, 15, 18
PAR	–	5.0	–	±0.08	1, 2, 6, 9, 10, 12, 13, 15, 18

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater

Spectroquant® Test Kits

Parameters M-N

Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
Magnesium Cell Test	5.0 – 75.0	5.0 – 75.0	5.0 – 75.0	5.0 – 75.0	Mg	25	1.00815.0001
Manganese Test	0.005 – 2.00	0.005 – 2.00 •	0.05 – 1.80	0.05 – 1.80	Mn	250	1.01846.0001
Manganese Test	0.010 – 10.00	0.010 – 10.00 •	0.05 – 6.00	0.05 – 6.00	Mn	250	1.14770.0002
						500	1.14770.0001
Manganese Cell Test	0.10 – 5.00	0.10 – 5.00	0.10 – 5.00	0.10 – 5.00	Mn	25	1.00816.0001
Mercury	0.025 – 1.000	0.025 – 1.000	–	–	Hg	–	–
Methylethylketoxime (2-Butanoneoxime)							
Molybdenum Cell Test	0.02 – 1.00	0.02 – 1.00 •	0.02 – 1.00	0.02 – 1.00	Mo	25	1.00860.0001
	0.03 – 1.67	0.03 – 1.67 •	0.03 – 1.67	0.03 – 1.67	MoO_4^{2+}		
	0.04 – 2.15	0.04 – 2.15 •	0.04 – 2.15	0.04 – 2.15	Na_2MoO_4		
Monochloramine Test	0.050 – 10.00	0.050 – 10.00 •	0.10 – 5.00	0.10 – 5.00	Cl_2	150	1.01632.0001
	0.036 – 7.26	0.036 – 7.26 •	0.07 – 3.63	0.07 – 3.63	NH_2Cl		
	0.010 – 1.98	0.010 – 1.98 •	0.02 – 0.99	0.02 – 0.99	NH_2Cl-N		
Nickel Test [C]	0.02 – 5.00	0.02 – 5.00 •	0.05 – 5.00	0.05 – 5.00	Ni	250	1.14785.0001
Nickel Cell Test [C]	0.10 – 6.00	0.10 – 6.00	0.10 – 6.00	0.10 – 6.00	Ni	25	1.14554.0001
Nickel in electroplating baths (inherent color)	2.0 – 120 g/L	2.0 – 120 g/L	–	–	Ni	–	–
Nitrate (UV)	0.0 – 7.0	–	–	–	NO_3-N	–	–
Nitrate Test [B.3) C)]	0.10 – 25.0	0.10 – 25.0 •	–	–	NO_3-N	100	1.09713.0001
	0.4 – 110.7	0.4 – 110.7 •			NO_3	250	1.09713.0002
Nitrate Test [B.3) C)]	0.2 – 20.0	0.2 – 20.0 •	0.5 – 15.0	0.5 – 15.0	NO_3-N	100	1.14773.0001
	0.89 – 88.5	0.89 – 88.5 •	2.2 – 66.4	2.2 – 66.4	NO_3		
Nitrate Test [B.3) C)]	0.3 – 30.0	0.3 – 30.0 •	0.3 – 30.0	0.3 – 30.0	NO_3-N	100	1.01842.0001
	1.3 – 132.8	1.3 – 132.8 •	1.3 – 132.8	1.3 – 132.8	NO_3		
Nitrate Cell Test [B.3) C)]	0.5 – 18.0	0.5 – 18.0	0.5 – 15.0	0.5 – 15.0	NO_3-N	25	1.14542.0001
	2.2 – 79.7	2.2 – 79.7	2.2 – 66.4	2.2 – 66.4	NO_3		
Nitrate Cell Test [B.3) C)]	0.5 – 25.0	0.5 – 25.0	–	–	NO_3-N	25	1.14563.0001
	2.2 – 110.7	2.2 – 110.7			NO_3		
Nitrate Cell Test [B.3) C)]	1.0 – 50.0	1.0 – 50.0	–	–	NO_3-N	25	1.14764.0001
	4 – 221	4 – 221			NO_3		
Nitrate Cell Test [B.3)]	23 – 225	23 – 225	–	–	NO_3-N	25	1.00614.0001
	102 – 996	102 – 996			NO_3		

B. This method is officially recognized by the USEPA as an alternative method for the investigation of 1. wastewater, 2. drinking water 3. drinking water and wastewater. | C. For determination of total content of this parameter, use one of the Crack Sets before the photometric procedure, see page 51. | • Only with NOVA 60

ANALYTICAL APPLICATION NOTES FINDER

Struggling with sample preparation for nitrate analysis in soil? Check our application notes on **www.merckmillipore.com/aaf > Photometry**

www.merckmillipore.com/**photometry**

Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
Phthalein complexone	–	1.0	–	±4.0	1, 2, 9, 10, 15, 18
PAN	–	8.0 + 2.0 + 0.25	10, 20, 50	±0.007	1, 2, 9, 10, 13, 15
Formaldioxime	analogous DIN 38406-2	5.0	10, 20, 50	±0.035	1, 2, 9, 10, 13, 15, 18
Formaldioxime	analogous DIN 38406-2	7.0	–	±0.08	1, 2, 10, 13, 18
Michler's thioketone	Application, see more information in Prove and NOVA manual	2.5 + 5.0 + 1.0 + 1.5	50	–	11, 18
see Oxygen Scavengers Test					
Bromopyrogallol red	–	10	–	±0.04	1, 5, 9, 13, 15, 18
Indophenol blue	–	0.6 + 10	10, 20, 50	±0.033	7, 9, 17
Dimethylglyoxime	–	5.0	10, 20, 50	±0.03	3, 5, 8, 9, 10, 11, 13, 15, 18
Dimethylglyoxime	–	5.0	–	±0.11	3, 5, 8, 10, 11, 18
–	Application, see more information in Prove and NOVA manual	5.0	10, 20, 50	–	10
direct measurement in the UV range	Application on Prove 300, analogous to APHA 4500-NO_3^- B, quartz cuvette required	50 + 1.0	10	–	9, 13
2,6-Dimethylphenol	analogous DIN 38405-9	0.5 + 4.0	10, 20, 50	±0.11	2, 6, 8, 9, 11, 13, 15, 17, 18
Nitrospectral	–	1.5 + 5.0	10, 20	±0.31	2, 6, 9, 11, 13, 15, 17, 18
Cadmium Reduction	–	10	50	±1.2	1, 2, 6, 8, 9, 10, 11, 13, 15, 17, 18
Nitrospectral	–	1.5	–	±0.5	1, 2, 6, 8, 9, 11, 13, 15, 17, 18
2,6-Dimethylphenol	analogous DIN 38405-9	1.0	–	±0.5	1, 2, 6, 9, 11, 13, 15, 17, 18
2,6-Dimethylphenol	analogous DIN 38405-9	0.5 + 1.0	–	±1.0	1, 2, 8, 9, 11, 13, 15, 18
2,6-Dimethylphenol	analogous DIN 38405-9	0.1 + 1.0	–	±5.0	1, 8, 11, 13, 18

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater

Spectroquant® Test Kits

Parameters N-P

	Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
N	Nitrate Cell Test in seawater	0.10 – 3.00	0.10 – 3.00 •	0.10 – 3.00	0.10 – 3.00	NO_3-N	25	1.14556.0001
		0.4 – 13.3	0.4 – 13.3 •	0.4 – 13.3	0.4 – 13.3	NO_3		
	Nitrate Test in seawater	0.2 – 17.0	0.2 – 17.0 •	–	–	NO_3-N	50	1.14942.0001
		0.9 – 75.3	0.9 – 75.3 •			NO_3		
USEPA approved	Nitrite Test [B,3]	0.002 – 1.00	0.002 – 1.00 •	5 – 400 µg/L	5 – 400 µg/L	NO_2-N	335	1.14776.0002
		0.007 – 3.28	0.007 – 3.28 •	16 – 1.313 µg/L	16 – 1.313 µg/L	NO_2	1,000	1.14776.0001
USEPA approved	Nitrite Cell Test [B,3]	0.010 – 0.700	0.010 – 0.700	10 – 700 µg/L	10 – 700 µg/L	NO_2-N	25	1.14547.0001
		0.03 – 2.30	0.03 – 2.30	33 – 2.299 µg/L	33 – 2.299 µg/L	NO_2		
USEPA approved	Nitrite Cell Test [B,3]	1.0 – 90.0	1.0 – 90.0	1.0 – 90.0	1.0 – 90.0	NO_2-N	25	1.00609.0001
		3.0 – 295.2	3.3 – 295.2	3.3 – 295.2	3.3 – 295.2	NO_2		
	Nitrogen (total) Cell Test	0.5 – 15.0	0.5 – 15.0	–	–	N	25	1.00613.0001
	Nitrogen (total) Cell Test	0.5 – 15.0	0.5 – 15.0	0.5 – 15.0	0.5 – 15.0	N	25	1.14537.0001
	Nitrogen (total) Cell Test	10 – 150	10 – 150	–	–	N	25	1.14763.0001
O	Organic Carbon, Total							
	Oxygen Cell Test	0.5 – 12.0	0.5 – 12.0	0.5 – 12.0	0.5 – 12.0	O_2	25	1.14694.0001
	Oxygen Demand, Biological							
	Oxygen Demand, Chemical							
	Oxygen Scavengers Test	0.020 – 0.500	0.020 – 0.500 •	0.020 – 0.500	0.020 – 0.500	DEHA	200	1.19251.0001
		0.027 – 0.667	0.027 – 0.667 •	0.027 – 0.667	0.027 – 0.667	Carbohy		
		0.05 – 1.32	0.05 – 1.32 •	0.053 – 1.315	0.053 – 1.315	Hydro		
		0.08 – 1.95	0.08 – 1.95 •	0.078 – 1.950	0.078 – 1.950	ISA		
		0.09 – 2.17	0.09 – 2.17 •	0.087 – 2.170	0.087 – 2.170	MEKO		
	Ozone Test	0.010 – 4.00	0.010 – 4.00 •	0.02 – 4.00	0.02 – 4.00	O_3	200	1.00607.0001
							1,200	1.00607.0002
P	Palladium	0.05 – 1.25	0.05 – 1.25 •	–	–	Pd	–	–
	Peroxide							
	pH Cell Test [A]	pH 6.4 – 8.8	pH 6.4 – 8.8	pH 6.4 – 8.8	pH 6.4 – 8.8	pH	280	1.01744.0001
	Phaeophytin-a and Chlorophyll-a							
	Phenol Test	0.002 – 0.100	0.002 – 0.100 •	0.10 – 5.00	0.10 – 5.00	Phenol	50 – 250	1.00856.0001
		0.025 – 5.00	0.025 – 5.00 •					
	Phenol Cell Test	0.10 – 2.50	0.10 – 2.50 •	0.10 – 2.50	0.10 – 2.50	Phenol	25	1.14551.0001
	Phosphate Test [C]	0.0025 – 5.00	0.010 – 5.00 •	0.01 – 2.50	0.01 – 2.50	PO_4-P	220	1.14848.0002
	(ortho-phosphate)	0.0077 – 15.30	0.03 – 15.3 •	0.03 – 7.66	0.03 – 7.66	PO_4	420	1.14848.0001
		0.0057 – 11.46	0.02 – 11.46 •	0.02 – 5.73	0.02 – 5.73	P_2O_5		
		0.0005 - 0.0250 [D]				PO_4-P		
		0.0015 - 0.0767 [D]				PO_4		
		0.0007 - 0.0335 [D]				P_2O_5		
	Phosphate Cell Test	0.05 – 5.00	0.05 – 5.00	0.05 – 4.00	0.05 – 4.00	PO_4-P	25	1.00474.0001
	(ortho-phosphate)	0.2 – 15.3	0.2 – 15.3	0.15 – 12.26	0.15 – 12.26	PO_4		
		0.11 – 11.46	0.11 – 11.46	0.11 – 9.17	0.11 – 9.17	P_2O_5		

A. The cell test contains three 16 mm cells with a bar-code label. After measurement, the cells can be emptied and cleaned for subsequent measurements. | B. This method is officially recognized by the USEPA as an alternative method for the investigation of 1. wastewater, 2. drinking water 3. drinking water and wastewater. | C. For determination of total content of this parameter, use one of the Crack Sets before the photometric procedure, see page 51. | D. With Prove 600. | • Only with NOVA 60

PHOSPHATE AID

Need help with phosphate or phosphonate analysis? Scan the QR code to learn more.



Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
Resorcinol	–	2.0	–	±0.09	1, 2, 8, 9, 11, 13, 15, 16, 18
Resorcinol	–	1.0 + 1.5 + 5.0	10	±0.4	1, 2, 8, 9, 11, 13, 15, 16, 18
Griess' reaction	analogous EPA 354.1, APHA 4500-NO_2^- B, DIN EN 26777	5.0	10, 20, 50	±0.005	2, 5, 8, 9, 10, 11, 13, 15, 16, 18
Griess' reaction	analogous EPA 354.1, APHA 4500-NO_2^- B, DIN EN 26777	5.0	–	±0.010	2, 5, 8, 9, 10, 11, 13, 15, 16, 18
Iron sulfate	–	8.0	–	±2.6	5, 10, 13, 16, 18
Koroleff digestion, 2,6-dimethylphenol	digestion analogous DIN EN ISO 11905-1, determination analogous DIN 38405-9	1.0 + 10	–	±0.5	1, 2, 5, 8, 11, 13, 14, 18
Koroleff digestion, nitrospectral	digestion analogous to DIN EN ISO 11905-1	1.5 + 10	–	±0.6	1, 2, 5, 8, 11, 13, 14, 18
Koroleff digestion, 2,6-dimethylphenol	digestion analogous DIN EN ISO 11905-1, determination analogous DIN 38405-9	1.0 + 9.0	–	±5.0	1, 8, 11, 14, 18
	see TOC				
mod. Winkler method	analogous DIN EN 25813-21	–	–	±0.3	2, 5, 11, 13, 17
	see BOD				
	see COD				
Iron reduction	–	0.2 + 10	20	±0.022	5
DPD	analogous DIN 38408-3	10	10, 20, 50	±0.023	7, 9, 15, 17
Michlers' thioketone	Application, see more information in Prove and NOVA manual	5.0 + 1.0 + 0.20	10	–	10, 18
	see Hydrogen Peroxide				
Indicator	–	10	–	±0.1 pH	2, 5, 7, 9, 13, 15, 16, 17
	see Chlorophyll-a and Phaeophytin-a				1, 2, 13
4-Aminoantipyrine	analogous EPA 420.1, ASTM D1783-01, APHA 5530 C + D, ISO 6439	5.0 + 10 1.0 + 10	20 10, 20, 50	±0.004 ±0.027	8, 9, 11, 13, 16, 18
MBTH		10	–	±0.11	8, 11, 13, 16, 18
Phosphomolybdenum blue	analogous EPA 365.2+3, APHA 4500-P E, DIN EN ISO 6878	5.0	10, 20, 50 100	±0.015	1, 2, 5, 9, 11, 13, 15, 16, 18
Phosphomolybdenum blue	analogous EPA 365.2+3, APHA 4500-P E, DIN EN ISO 6878	5.0	–	±0.08	1, 2, 5, 9, 11, 13, 15, 16, 18

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater

Spectroquant® Test Kits

Parameters P-S

	Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
P	Phosphate Cell Test	0.05 – 5.00	0.05 – 5.00	0.05 – 4.00	0.05 – 4.00	PO_4-P	25	1.14543.0001
	(ortho-phosphate and total	0.2 – 15.3	0.2 – 15.3	0.15 – 12.26	0.15 – 12.26	PO_4		
USEPA approved	phosphorus) [B.3)]	0.11 – 11.46	0.11 – 11.46	0.11 – 9.17	0.11 – 9.17	P_2O_5		
	Phosphate Cell Test	0.5 – 25.0	0.5 – 25.0	0.5 – 20.0	0.5 – 20.0	PO_4-P	25	1.00475.0001
	(ortho-phosphate)	1.5 – 76.7	1.5 – 76.7	1.5 – 61.3	1.5 – 61.3	PO_4		
		1.1 – 57.3	1.1 – 57.3	1.1 – 45.8	1.1 – 45.8	P_2O_5		
USEPA approved	Phosphate Cell Test	0.5 – 25.0	0.5 – 25.0	0.5 – 20.0	0.5 – 20.0	PO_4-P	25	1.14729.0001
	(ortho-phosphate and total	1.5 – 76.7	1.5 – 76.7	1.5 – 61.3	1.5 – 61.3	PO_4		
	phosphorus) [B.3)]	1.1 – 57.3	1.1 – 57.3	1.1 – 45.8	1.1 – 45.8	P_2O_5		
	Phosphate Cell Test	0.5 – 25.0	0.5 – 25.0	0.5 – 25.0	0.5 – 25.0	PO_4-P	25	1.14546.0001
	(ortho-phosphate)	1.5 – 76.7	1.5 – 76.7	1.5 – 76.7	1.5 – 76.7	PO_4		
		1.1 – 57.3	1.1 – 57.3	1.1 – 57.3	1.1 – 57.3	P_2O_5		
	Phosphate Test	0.5 – 30.0	0.5 – 30.0 •	0.5 – 30.0	0.5 – 30.0	PO_4-P	400	1.14842.0001
	(ortho-phosphate)	1.5 – 92.0	1.5 – 92.0 •	1.5 – 92.0	1.5 – 92.0	PO_4		
		1.1 – 68.7	1.1 – 68.7 •	1.1 – 68.7	1.1 – 68.7	P_2O_5		
	Phosphate Test	1.0 – 100.0	1.0 – 100.0 •	1.0 – 60.0	1.0 – 60.0	PO_4-P	100	1.00798.0001
	(ortho-phosphate)	3 – 307	3 – 307 •	3.1 – 184	3.1 – 184	PO_4		
		2 – 229	2 – 229 •	2.3 – 137.5	2.3 – 137.5	P_2O_5		
	Phosphate Cell Test	3.0 – 100.0	3.0 – 100.0	3.0 – 100.0	3.0 – 100.0	PO_4-P	25	1.00616.0001
	(ortho-phosphate)	9 – 307	9 – 307	9 – 307	9 – 307	PO_4		
		7 – 229	7 – 229	7 – 229	7 – 229	P_2O_5		
	Phosphate Cell Test	3.0 – 100.0	3.0 – 100.0	3.0 – 100.0	3.0 – 100.0	PO_4-P	25	1.00673.0001
	(ortho-phosphate	9 – 307	9 – 307	9 – 307	9 – 307	PO_4		
	and total phosphorus)	7 – 229	7 – 229	7 – 229	7 – 229	P_2O_5		
	Platinum	0.10 – 1.25	0.10 – 1.25 •	-	-	Pt	–	–
	Platinum-Cobalt Standard Method							
	Potassium Cell Test	5.0 – 50.0	5.0 – 50.0	5.0 – 50.0	5.0 – 50.0	K	25	1.14562.0001
	Potassium Cell Test	30 – 300	30 – 300	30 – 300	30 – 300	K	25	1.00615.0001
	Protein Test	0.01 – 1.4 g/L	0.01 – 1.4 g/L	-	-	Protein	200	1.10306.0500
	Protein Test	0.5 – 10 g/L	0.5 – 10 g/L	-	-	Protein	250	1.10307.0500
R	Residual Hardness Cell Test	0.50 – 5.00	0.50 – 5.00	0.50 – 5.00	0.50 – 5.00	Ca	25	1.14683.0001
		0.070 – 0.700	0.070 – 0.700	0.070 – 0.700	0.070 – 0.700	°d		
		0.087 – 0.874	0.087 – 0.874	0.087 – 0.874	0.087 – 0.874	°e		
		0.12 – 1.25	0.12 – 1.25	0.12 – 1.25	0.12 – 1.25	°f		
		0.70 – 7.00	0.70 – 7.00	0.70 – 7.00	0.70 – 7.00	CaO		
		1.2 – 12.5	1.2 – 12.5	1.2 – 12.5	1.2 – 12.5	$CaCO_3$		
S	SAC (Spectral absorption coefficient)	0.5 – 250 m^{-1}	–	–	–	–	–	–

B. This method is officially recognized by the USEPA as an alternative method for the investigation of 1. wastewater, 2. drinking water 3. drinking water and wastewater. | • Only with NOVA 60

waste disposal advice
Learn how to safely dispose of old test kits:
www.disposal-test-kits.com

Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
Phosphomolybdenum blue	analogous EPA 365.2+3, APHA 4500-P E, DIN EN ISO 6878	5.0	–	±0.06	1, 2, 5, 9, 11, 13, 15, 16, 18
Phosphomolybdenum blue	analogous EPA 365.2+3, APHA 4500-P E, DIN EN ISO 6878	1.0	-	±0.5	1, 2, 4, 8, 11, 13, 16, 18
Phosphomolybdenum blue	analogous EPA 365.2+3, APHA 4500-P E, DIN EN ISO 6878	1.0	-	±0.4	1, 2, 4, 8, 11, 13, 16, 18
Vanadato-molybdate	analogous APHA 4500-P C	5.0	-	±0.4	5, 16
Vanadato-molybdate	analogous APHA 4500-P C	1.2 + 5.0	10, 20	±0.2	5, 16
Phosphomolybdenum blue	analogous EPA 365.2+3, APHA 4500-P E, DIN EN ISO 6878	0.5 + 8.0	10	±1.4	1, 2, 4, 8, 11, 12, 13, 18
Phosphomolybdenum blue	analogous EPA 365.2+3, APHA 4500-P E, DIN EN ISO 6878	0.2	-	±1.2	1, 4, 8, 11, 13, 16, 18
Phosphomolybdenum blue	analogous EPA 365.2+3, APHA 4500-P E, DIN EN ISO 6878	0.2	-	±1.4	1, 4, 8, 11, 13, 16, 18
–	Application, see more information in Prove and NOVA manual see Color	5.0 + 1.0 + 0.50	10	–	10, 18
Kalignost®, turbidimetric	–	2.0	-	±2.2	9, 12, 13, 15, 16
Kalignost®, turbidimetric	–	0.5	-	±13	1, 16
Bradford Method	Method not programmed in the photometers	–	10	–	
Biuret Method	Method not programmed in the photometers	–	10	–	
Phthalein complexone	–	0.2 + 4.0	–	±0.14	2, 5, 9
–	physical measurement according DIN 38404, at 436 nm (Prove 100) and 254 + 436 nm (Prove 300)	–	10, 20, 50	–	9, 15

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater

Spectroquant® Test Kits

Parameters S

	Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
S	Silicate (Silicic Acid) Test	0.00025 – 0.50000 0.00012 – 0.23370 0.00025 – 0.02500 D) 0.00012 – 0.01168 D)	0.0005 – 0.5000 • 0.0002 – 0.2337 •	0.004 – 0.500 0.002 – 0.234	0.004 – 0.500 0.002 – 0.234	SiO_2 Si SiO_2 Si	100	1.01813.0001
	Silicate (Silicic Acid) Test	0.011 – 10.70 0.005 – 5.00	0.011 – 10.70 • 0.005 – 5.00 •	0.11 – 8.56 0.05 – 4.00	0.11 – 8.56 0.05 – 4.00	SiO_2 Si	300	1.14794.0001
	Silicate (Silicic Acid) Test	1.1 – 1,070 0.5 – 500	1.1 – 1,070 • 0.5 – 500 •	11 – 1,070 5 – 500	11 – 1,070 5 – 500	SiO_2 Si	100	1.00857.0001
	Silver Test	0.25 – 3.00	0.25 – 3.00 •	–	–	Ag	100	1.14831.0001
	Sodium Cell Test in nutrient solutions for fertilization	10 – 300	10 – 300	10 – 300	10 – 300	Na	25	1.00885.0001
	Spectral Absorption Coefficient, Color	0.1 – 250 m^{-1}	–	–	–	–	–	–
	Spectral Attenuation Coefficient	0.5 – 250 m^{-1}	–	–	–	–	–	–
	Sulfate Test	0.50 – 50.0	0.50 – 50.0 •	1.0 – 25.0	1.0 – 25.0	SO_4	100	1.01812.0001
	Sulfate Cell Test	1.0 – 50.0	1.0 – 50.0	2.0 – 50.0	2.0 – 50.0	SO_4	25	1.02532.0001
USEPA approved	Sulfate Cell Test B.1)	5 – 250	5 – 250	5 – 250	5 – 250	SO_4	25	1.14548.0001
	Sulfate Test	5 – 300	5 – 300 •	5 – 300	10 – 300	SO_4	100 1,000	1.02537.0001 1.02537.0002
	Sulfate Test	25 – 300	25 – 300 •	–	–	–	200	1.14791.0001
	Sulfate Cell Test	50 – 500	50 – 500	50 – 500	50 – 500	SO_4	25	1.00617.0001
USEPA approved	Sulfate Cell Test B.1)	100 – 1,000	100 – 1,000	100 – 1,000	100 – 1,000	SO_4	25	1.14564.0001
	Sulfide Test	0.020 – 1.50	0.020 – 1.50 •	0.10 – 1.50	0.10 – 1.50	S^{2-}	220	1.14779.0001
	Sulfite Cell Test	0.8 – 16.00 1.0 – 20.00 0.05 – 3.00 0.04 – 2.40	0.8 – 16.00 • 1.0 – 20.00 • 0.05 – 3.00 • 0.04 – 2.40 •	1.0 – 20.0	1.0 – 20.0	SO_2 SO_3 SO_3 SO_2	25	1.14394.0001
	Sulfite Test	1.0 – 60.0 0.8 – 48.0	1.0 – 60.0 • 0.8 – 48.0 •	1.0 – 60.0	1.0 – 60.0	SO_3 SO_2	150	1.01746.0001
	Surfactants (anionic) Cell Test	0.05 – 2.00	0.05 – 2.00 •	0.05 – 2.00	0.10 – 2.00	MBAS	25	1.02552.0001
	Surfactants (cationic) Cell Test	0.05 – 1.50	0.05 – 1.50 •	0.05 – 1.50	–	CTAB	25	1.01764.0001
	Surfactants (nonionic) Cell Test	0.10 – 7.50	0.10 – 7.50	0.10 – 7.50	0.10 – 7.50	Triton® X-100	25	1.01787.0001
	Suspended solids	25 – 750	25 – 750	50 – 750	50 – 750	susp. solids	–	–

B. This method is officially recognized by the USEPA as an alternative method for the investigation of 1. wastewater, 2. drinking water 3. drinking water and wastewater. | D. With Prove 600. | • Only with NOVA 60

HIGHER SENSITIVITY

New cell test for anionic surfactants: now with even higher sensitivity!



Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
Silicomolybdenum blue	analogous APHA 4500-SiO_2 D+E, ASTM D859-10, DIN 38405-21	10 + 0.5	50 100	±0.00449	5, 9, 13, 15
Silicomolybdenum blue	analogous APHA 4500-SiO_2 D+E, ASTM D859-10, DIN 38405-21	5.0 + 0.5	10, 20, 50	±0.024	5, 6, 9, 13, 16
Molybdosilicate	analogous APHA 4500-SiO_2 C	0.5 + 2.0 + 4.0 + 5.0	10	±2.1	5, 6, 9, 13, 15
Eosine, 1,10-phenanthroline	reagents for the digestion in the thermoreactor are included in the test kit	1.0 + 10	10, 20	±0.07	10, 18
Iron(III)-thiocyanate	determination as chloride	0.5	–	±13	1
–	see Color, Spectral Absorption Coefficient	–	–	–	
–	physical measurement according DIN 38404, at 254 nm	–	10, 20, 50	–	
Barium sulfate, turbidimetric	analogous EPA 375.4, APHA 4500-SO_4^{2-} E, ASTM D516-11	0.5 + 10	10, 20, 50	±0.90	1, 2, 6, 9, 11, 13, 15, 18
Barium sulfate, turbidimetric	analogous EPA 375.4, APHA 4500-SO_4^{2-} E, ASTM D516-11	10	–	±1.1	1, 6, 9, 11, 13, 15, 18
Barium sulfate, turbidimetric	analogous EPA 375.4, APHA 4500-SO_4^{2-} E, ASTM D516-11	5.0	–	±8	1, 6, 9, 11, 13, 15, 16
Barium sulfate, turbidimetric	analogous EPA 375.4, APHA 4500-SO_4^{2-} E, ASTM D516-11	0.5 + 5	10	±7	1, 6, 9, 11, 13, 15, 16, 18
Tannic acid	–	2.5	10	±14	6, 9, 11, 13, 15
Barium sulfate, turbidimetric	analogous EPA 375.4, APHA 4500-SO_4^{2-} E, ASTM D516-11	2.0 + 5.0	–	±16	1, 6, 9, 11, 13, 15, 16
Barium sulfate, turbidimetric	analogous EPA 375.4, APHA 4500-SO_4^{2-} E, ASTM D516-11	1.0 + 5.0	–	±33	1, 4, 6, 8, 9, 11, 13, 15, 16, 18
Dimethyl-p-phenylenediamine	analogous EPA 376.2, APHA 4500-S^{2-} D, ISO 10530, DIN 38405-26	5.0	10, 20, 50	±0.017	2, 8, 9, 11, 13, 15, 18
Ellman's reagent	for determinations of the low measuring range see manual NOVA / Prove	3.0 + 7.0	– – 50 50	±0.4	1, 3, 5, 12, 15, 18
Ellman's reagent	–	2.0 + 3.0 + 5.0	10	±1.0	3, 5, 12, 13, 15, 18
Methylene blue	analogous EPA 425.1, APHA 5540 C, ASTM 2330-02, DIN EN 903, ISO 7875-1	5.0	-	±0.09	9, 11, 13, 18
Disulfine blue	analogous DIN 38409-20	0.5 + 5.0	-	±0.06	9, 11, 13, 18
TBPE	–	4.0	-	±0.26	9, 11, 13, 18
–	physical measurement	–	20	–	

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater

Spectroquant® Test Kits

Parameters T-Z

	Parameter	Measuring range of the Spectroquant® instruments [mg/L] Prove 100/300/600	NOVA 30/60	Multy	Move 100	Citation form	No. of tests	Ord. No.
T	Tin Cell Test	0.10 – 2.50	0.10 – 2.50 •	0.10 – 2.50	0.10 – 2.50	Sn	25	1.14622.0001
	TOC Cell Test	5.0 – 80.0	5.0 – 80.0	5.0 – 80.0	–	TOC	25	1.14878.0001
	TOC Cell Test	50 – 800	50 – 800	50 – 800	–	TOC	25	1.14879.0001
	Screw caps for Spectroquant® TOC digestion	–	–	–	–	–	6	1.73500.0001
	TOC-Standard 1000 ±10 mg/L	–	–	–	–	–	100 mL	1.09017.0100
	Total Alkalinity							
	Total Hardness Cell Test	5 – 215	5 – 215	5 – 215	5 – 215	Ca	25	1.00961.0001
		0.7 – 30.1	0.7 – 30.1	0.7 – 30.1	0.7 – 30.1	°d		
		0.9 – 37.6	0.9 – 37.6	0.9 – 37.6	0.9 – 37.6	°e		
		1.2 – 53.7	1.2 – 53.7	1.2 – 53.7	1.2 – 53.7	°f		
		7 – 301	7 – 301	7 – 301	7 – 301	CaO		
		12 – 537	12 – 537	12 – 537	12 – 537	$CaCO_3$		
	Total Nitrogen							
	Transmission	0.0 – 100.0 %	0.0 – 100.0 %	–	–	T	–	–
	Turbidity	1 – 100	1 – 100 •	1 – 100	1 – 100	FAU	–	–
V	Volatile Organic Acid Cell Test	50 – 3.000	50 – 3.000	50 – 3.000	50 – 3.000	acetic acid	25	1.01749.0001
		71 – 4,401	71 – 4,401	71 – 4,401	71 – 4,401	butyric acid		
	Volatile Organic Acid Test [A]	50 – 3.000	50 – 3.000	50 – 3.000	50 – 3.000	acetic acid	100	1.01809.0001
		71 – 4,401	71 – 4,401	71 – 4,401	71 – 4,401	butyric acid		
W	Water Hardness							
Z	Zinc Cell Test [C]	0.025 – 1.000	0.025 – 1.000	25 – 1.000 µg/L	25 – 1.000 µg/L	Zn	25	1.00861.0001
	Zinc Test [C]	0.05 – 2.50	0.05 – 2.50 •	–	–	Zn	100	1.14832.0001
	Zinc Reagent 6 (Isobutylmethylketone GR)	–	–	–	–	–	200	1.06146.1000
	Zinc Cell Test [C]	0.20 – 5.00	0.20 – 5.00	0.20 – 5.00	0.20 – 5.00	Zn	25	1.14566.0001

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www.sigma-aldrich.com

A. The cell test contains four 16 mm cells with a bar-code label. After measurement, the cells can be emptied and cleaned for subsequent measurements. | C. For determination of total content of this parameter, use one of the Crack Sets before the photometric procedure, see page 51. | • Only with NOVA 60



TOC TEST

Easily check total organic carbon with our TOC cell test

Method	Reference to norms and standards / Comments	Pipette volume [mL]	Cell size [mm] NOVA/Prove	Accuracy [mg/L]	Areas of application
Pyrocatechol violet	–	5.0	–	±0.08	5, 10, 16, 18
Indicator	Oxidation analogous APHA 5310 D	3.0 + 25	–	±3.6	9, 11, 13, 15, 18
Indicator	Oxidation analogous APHA 5310 D	1.0 + 3.0 + 9.0	–	±40	8, 11, 13, 18
–	for multiple use, additionally required for TOC measurement	–	–	–	
–	analogous EN 1484-H43, DIN 38409-H3	–	–	–	
	see Acid Capacity to pH 4.3				
Phthalein complexone	–	1.0	–	±8	2, 9, 13, 15
	see Nitrogen (total)				
–	–	10, 20, 50	–	–	
–	analogous to EN ISO 7027	–	50	–	
Hydroxamic acids / iron(III) salt	–	0.5 + 5.0	–	±69	4, 8, 11, 18
Hydroxamic acids / iron(III) salt	–	0.75 + 0.5 + 5.0	–	±85	4, 8, 11, 18
	see Total Hardness or Res. Hardness				
PAR	–	0.5 + 2.0 + 10	–	±0.033	1, 5, 9, 10, 11, 13, 15, 18
CI-PAN	–	5.0	10	±0.07	5, 6, 8, 9, 10, 11, 15, 18
–	Extracting agent for Zinc Test 1.14832.0001	–	–	–	
PAR	–	0.5	–	±0.18	5, 6, 8, 9, 10, 11, 15, 18

Areas of application:

1 Agriculture
2 Aquaculture
3 Beverages
4 Biotechnology, fermenter
5 Boiler water, cooling water
6 Construction-material industry
7 Disinfection control
8 Disposal drainage water
9 Drinking water
10 Electroplating surface refinement
11 Environment
12 Food testing
13 Groundwater, surface water
14 Milk dairy products
15 Mineral water
16 Seawater
17 Swimming pools
18 Wastewater