Water Analysis

visocolor® Water Test Kits

Convenient
Compact
Reliable

visocolor® Water Test Kits

- Ready-to-use single parameter tests
- Portable water laboratories
- Visual and photometric determination

MACHEREY-NAGEL
www.mn-net.com

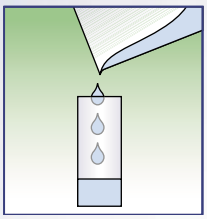
VISOCOLOR® *alpha* Colorimetric Tests

Principle:
Colorimetry with colour comparison card

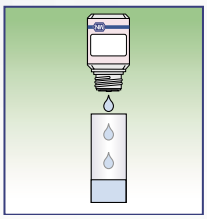
⊕ visual evaluation
⊕ environment-friendly, **without hazardous goods**
⊕ low-priced
⊕ convenient handling, **as easy as dip sticks**
⊕ accurate results
⊕ handy packages
⊕ with pictographic instructions
⊕ reagent bottles with clear dosing instructions

Test kit consists of plastic pack with:

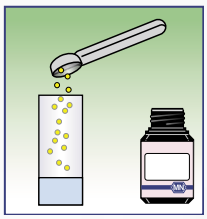
· sample tube with 5 ml ring mark
· colour coded bottles with liquid or powder reagents
· measuring spoon for accurate dosage of solid reagents
· colour scale with at least 5 gradations



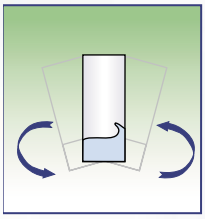
Fill sample tube with the water sample.



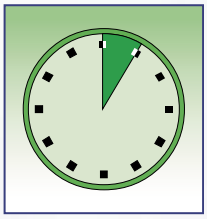
Add liquid reagent or...



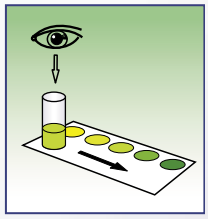
...add solid reagent.



Mix.



Wait the indicated reaction time.



View from above and compare with colour scale.

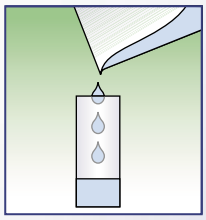
VISOCOLOR® *alpha* Titration Test Kits

Principle:
Titration with drop counting

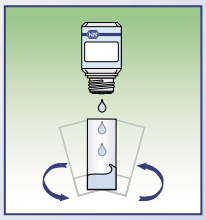
⊕ visual evaluation
⊕ environment-friendly, **without hazardous goods**
⊕ low-priced
⊕ convenient handling, **as easy as dip sticks**
⊕ accurate results
⊕ indicator and titration solution in one dropping bottle
⊕ handy packages
⊕ with pictographic instructions
⊕ reagent bottles with clear dosing instructions

Test kit consists of plastic pack with:

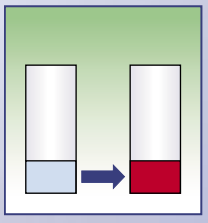
· sample tube with 5 ml ring mark
· one dropping bottle with mixture of indicator and titration solution



Fill sample tube with the water sample.



Add liquid reagent...



...until indicator changes colour.

Count drops: 1 drop = 1 measuring unit, e.g. °d

visocolor® alpha
accuracy – sensitivity – costs
BASIC

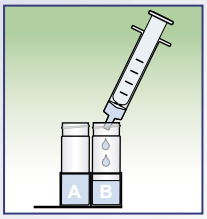
VISOCOLOR® *ECO* Colorimetric Test Kits

Principle:
Colorimetry with colour comparison card

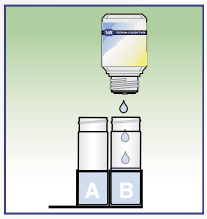
⊕ **visual and photometric** evaluation (with PF-11 / photino)
⊕ environment-friendly, **without toxic reagents**
⊕ economically priced
⊕ convenient handling
⊕ **higher** accuracy and sensitivity
⊕ with pictographic instructions
⊕ reagent bottles with clear dosing instructions
⊕ **compensation** of turbidities and colours
⊕ **refill packs** available

Test kit consists of cardboard box with:

· 2 measuring tubes 20 mm diameter with screw caps
· holder for the measuring tubes
· colour coded bottles with liquid or powder reagents
· gradated plastic syringe 5 ml for convenient sample dosage
· measuring spoon for accurate dosage of solid reagents
· colour comparison card with at least 8 gradations

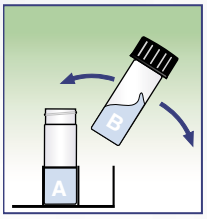


Fill both tubes with the water sample.

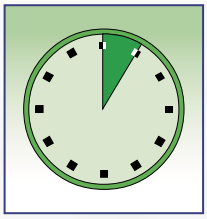


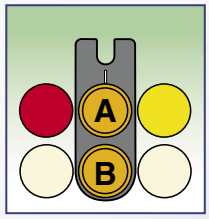
Add liquid reagent (tube B).

Add solid reagent (tube B).



Close and mix.


Wait the indicated reaction time.



Place on colour scale and shift until colours match.

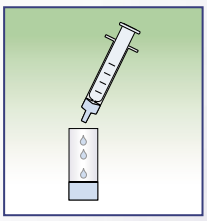
VISOCOLOR® *ECO* Titration Test Kits

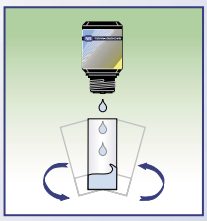
Principle:
Titration with drop counting

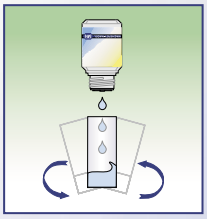
⊕ visual evaluation
⊕ environment-friendly, **without toxic reagents**
⊕ economically priced
⊕ convenient handling
⊕ **higher** accuracy and sensitivity
⊕ sharper colour change due to separated dropping reagents
⊕ reagent bottles with clear dosing instructions

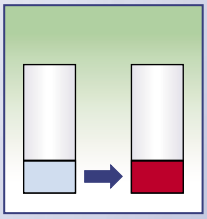
Test kit consists of cardboard box with:

· sample tube with 5 ml ring mark
· gradated plastic syringe 5 ml for convenient sample dosage
· dropping bottle(s) with indicator solution
· dropping bottle(s) with titration solution


Fill sample tube with the water sample.


Add indicator and mix.


Add titration solution drop by drop...


...until indicator changes colour.
Count drops: 1 drop = 1 measuring unit, e.g. °d

visocolor® ECO
accuracy – sensitivity – costs
STANDARD

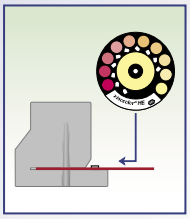
VISOCOLOR® *HE* Test Kits

Principle: High sensitivity colorimetry with comparator block and colour comparison disc

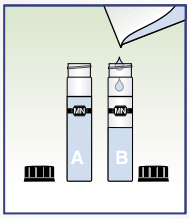
⊕ visual evaluation
⊕ environment-friendly, **without toxic reagents**
⊕ economically priced
⊕ convenient handling
⊕ **highest accuracy due to extremely narrow gradation**
⊕ **highest sensitivity down to 0.002 mg/l due to longer measuring tubes**
⊕ reagent bottles with clear dosing instructions
⊕ **compensation** of turbidities and colours
⊕ **refill packs** available

Test kit consists of plastic box with:

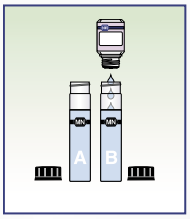
· 2 measuring tubes 20 mm diameter with screw caps
· comparator block with colour comparison disk
· colour coded bottles with liquid or powder reagents
· measuring spoon for accurate dosage of solid reagents
· beaker for convenient sample dosage



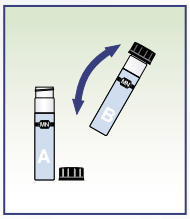
Insert colour comparison disk.



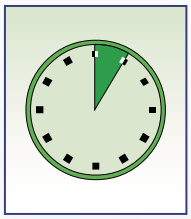
Fill both tubes with the water sample.



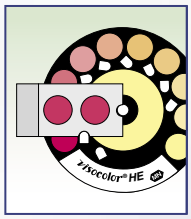
Add liquid and/or solid reagents (tube B).



Close and mix.



Wait the indicated reaction time.



Turn the disk until colours match.

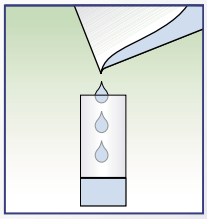
VISOCOLOR® Titration Test Kits

Principle: High sensitive volumetric analysis with gradated syringe

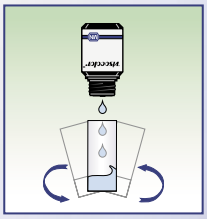
⊕ visual evaluation
⊕ economically priced
⊕ convenient handling
⊕ **highest accuracy due to narrow gradated syringes**
⊕ reagent bottles with clear dosing instructions
⊕ sharper colour change due to separated dropping reagents
⊕ **refill packs** available

Test kit consists of cardboard box with:

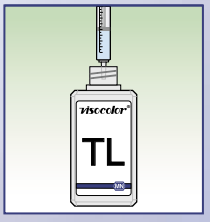
· sample tube with 5 ml ring mark
· gradated syringe for precise reagent dosage
· bottle(s) with indicator solution
· bottle(s) with titration solution



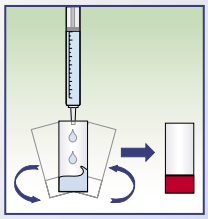
Fill sample tube with the water sample.



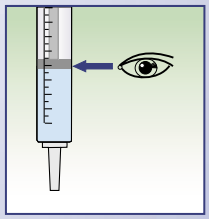
Add the indicator and mix.



Fill the titration syringe.



Add titration solution until the indicator changes colour.



Read result.

visocolor® HE
accuracy – sensitivity – costs
SUPERIOR

VISOCOLOR® test kit for the determination of	Range & gradation	No. of analyses	Shelf life (months)	Type	Cat. No. Test kit	Cat. No. Refill pack
Acidity AC 7 (base capacity) •	1 gradation mark = 0.2 mmol/l / 8.8 mg/l CO_2	200	24	Titr.	915 006	915 206
Alkalinity AL 7 *(total)* •	1 gradation mark = 0.2 mmol/l / 8.8 mg/l CO_2	200	24	Titr.	915 007	915 207
Alkalinity (p/m) •	see Carbonate hardness C 20					
Aluminium •	0-0.10-0.15-0.20-0.25-0.30-0.40-0.50 mg/l Al	50	24	ECO	931 006	931 206
Ammonium 15 •	0-0.5-1-2-3-5-7-10-15 mg/l NH_4^+	50	18	ECO	931 010	931 210
Ammonium •	0-0.2-0.5-1-2-3 mg/l NH_4^+	50	18	alpha	935 012	
Ammonium 3 •	0-0.2-0.3-0.5-0.7-1-2-3 mg/l NH_4^+	50	18	ECO	931 008	931 208
Ammonium	0.0-0.02-0.04-0.07-0.10-0.15-0.20-0.30-0.40-0.50 mg/l NH_4^+	110	12	HE	920 006	920 106
Calcium CA 20 •	1 gradation mark = 0.5 °d = 0.1 mmol/l Ca	200	24	Titr.	915 010	915 210
Calcium •	1 drop = 5 mg/l Ca	100	18	ECO	931 012	
Carbonate hardness •	1 drop = 1 °d	100	18	alpha	935 016	
Carbonate hardness •	1 drop = 1 °d	100	24	ECO	931 014	
Carbonate hardness C 20 (p-/m alkalinity) •	1 gradation mark = 0.5 °d = 0.2 mmol/l	200	24	Titr.	915 003	915 203
Carbonic acid •	see Acidity AC 7					
Chloride	0-1-2-4-7-12-20-40-60 mg/l Cl^-	90	12	ECO	931 018	931 218
Chloride CL 500 •	1 gradation mark = 5 mg/l	300	24	Titr.	915 004	915 204
Chlorine •	0.25-0.5-1.0-1.5-2.0 mg/l Cl_2	150	18	alpha	935 019	
Chlorine 2 *(free and total)* •	<0.1-0.1-0.2-0.3-0.4-0.6-0.9-1.2-2.0 mg/l Cl_2	150	18	ECO	931 015	931 215
free Chlorine 2 •	<0.1-0.1-0.2-0.3-0.4-0.6-0.9-1.2-2.0 mg/l Cl_2	150	18	ECO	931 016	931 216
Chlorine 6 *(free and total)* •	0.05-6.00 mg/l Cl_2 (only photometric determination)	200	24	ECO		931 217
free Chlorine 6 •	0.05-6.00 mg/l Cl_2 (only photometric determination)	400	24	ECO		931 219
Chlorine •	0.0-0.02-0.04-0.06-0.10-0.15-0.20-0.30-0.40-0.60 mg/l Cl_2	2 x 160	24	HE	920 015	920 115
Chromium(VI) •	0.00-0.02-0.05-0.10-0.15-0.20-0.30-0.40-0.50 mg/l Cr(VI)	140	18	ECO	931 020	931 220
Copper •	0-0.1-0.2-0.3-0.5-0.7-1.0-1.5 mg/l Cu	100	24	ECO	931 037	931 237
Copper •	0.0-0.04-0.07-0.10-0.15-0.20-0.25-0.30-0.40-0.50 mg/l Cu	150	24	HE	920 050	920 150
Cyanide •	0-0.01-0.02-0.03-0.05-0.07-0.10-0.15-0.20 mg/l CN^-	100	12	ECO	931 022	931 222
Cyanide •	0.0-0.002-0.004-0.007-0.010-0.015-0.020-0.025-0.030-0.040 mg/l CN^-	55	12	HE	920 028	920 128
Cyanuric acid •	10-15-20-30-40-60-80-100 mg/l Cya	100	18	ECO	931 023	931 223
DEHA (diethylhydroxylamine) •	0-0.01-0.03-0.05-0.10-0.15-0.20-0.25-0.30 mg/l DEHA	125	12	ECO	931 024	931 224
Fluoride	0.1-2.0 mg/l F^- (only photometric determination)	150	18	ECO		931 227
Hardness *(total)* •	1 drop = 1 °d	100	18	alpha	935 042	
Hardness *(total)* •	1 drop = 1 °d	110	18	ECO	931 029	
Hardness H 20 F *(total)* •	1 gradation mark = 0.5 °d = 0.1 mmol/l	200	18	Titr.	915 005	915 205
Hardness H 2 (residual)	1 gradation mark = 0.05 °d = 0.01 mmol/l	200	18	Titr.	915 002	915 202
Hardness (residual) •	0.00-0.04-0.08-0.15-0.30 °d	200	12	alpha	935 080	
Iron •	0-0.04-0.07-0.10-0.15-0.20-0.30-0.50-1.0 mg/l Fe	100	24	ECO	931 026	931 226
Iron	0.0-0.01-0.02-0.03-0.04-0.05-0.07-0.10-0.15-0.20 mg/l Fe	300	24	HE	920 040	920 140
Manganese •	0-0.1-0.2-0.3-0.5-0.7-0.9-1.2-1.5 mg/l Mn	70	18	ECO	931 038	931 238
Manganese •	0.0-0.03-0.06-0.10-0.15-0.20-0.25-0.30-0.40-0.50 mg/l Mn	100	24	HE	920 055	920 155
Nickel •	0-0.1-0.2-0.3-0.5-0.7-0.9-1.2-1.5 mg/l Ni^{2+}	150	18	ECO	931 040	931 240
Nitrate •	2-8-15-30-50 mg/l NO_3^-	100	18	alpha	935 065	
Nitrate •	0-1-3-5-10-20-30-50-70-90-120 mg/l NO_3^-	110	18	ECO	931 041	931 241
Nitrite •	0.05-0.10-0.25-0.5-1.0 mg/l NO_2^-	200	18	alpha	935 066	
Nitrite •	0-0.02-0.03-0.05-0.07-0.1-0.2-0.3-0.5 mg/l NO_2^-	120	18	ECO	931 044	931 244
Nitrite •	0.00-0.005-0.010-0.015-0.02-0.03-0.04-0.06-0.08-0.10 mg/l NO_2^-	150	24	HE	920 063	920 163
Oxygen •	0-1-2-3-4-6-8-10 mg/l O_2	50	18	ECO	931 088	931 288
Oxygen SA 10 •	1 gradation mark = 0.2 mg/l O_2	100	18	Titr.	915 009	915 209
Oxygen consumption •	(can only be used with test kit Oxygen SA 10)	–	18	Titr.	915 012	
pH 5 - 9 •	pH 5.0-5.5-6.0-6.5-7.0-7.5-8.0-8.5-9.0	200	36	alpha	935 075	
pH 4.0 - 9.0 •	pH 4.0-5.0-6.0-6.5-7.0-7.5-8.0-8.5-9.0	450	36	ECO	931 066	931 266
pH 4.0 - 10.0 •	pH 4.0-5.0-5.5-6.0-6.5-7.0-7.5-8.0-8.5-9.0-10.0	500	24	HE	920 074	920 174
pH 6.0 - 8.2 •	pH 6.0-8.2 (only photometric determination)	150	18	ECO		931 270
Phosphate •	2-5-10-15-20 mg/l PO_4^{3-}	70	24	alpha	935 079	
Phosphate •	0-0.2-0.3-0.5-0.7-1-2-3-5 mg/l PO_4-P	80	36	ECO	931 084	931 284
Phosphate •	0.0-0.05-0.10-0.15-0.20-0.3-0.4-0.6-0.8-1.0 mg/l P	300	24	HE	920 082	920 182

• suitable for sea water analysis (see instruction leaflet)

VISOCOLOR® test kit for the determination of	Range & gradation	No. of analyses	Shelf life (months)	Type	Cat. No. Test kit	Cat. No. Refill pack
Phosphate (DEV) •	0.0-0.01-0.02-0.03-0.05-0.07-0.10-0.15-0.20-0.25 mg/l P	100	24	HE	920 080	920 180
Potassium	2-3-4-6-8-10-15 mg/l K	60	36	ECO	931 032	931 232
Residual hardness	see Hardness					
Silica / Silicon •	0-0.2-0.4-0.6-1.0-1.5-2.0-2.5-3.0 mg/l SiO_2	100	36	ECO	931 033	931 233
Silica / Silicon •	0.0-0.01-0.02-0.03-0.05-0.07-0.10-0.15-0.20-0.30 mg/l Si	120	24	HE	920 087	920 187
Sulphate •	25-30-35-40-50-60-70-80-100-120-150-200 mg/l SO_4^{2-}	100	36		914 035	914 235
Sulphide •	0-0.1-0.2-0.3-0.4-0.5-0.6-0.7-0.8 mg S^{2-}	90	36	ECO	931 094	931 294
Sulphite •	1 drop = 1 mg/l SO_3^{2-}	60	12	ECO	931 095	
Sulphite SU 100 •	1 gradation mark = 2 mg/l SO_3^{2-}	100	36	Titr.	915 008	915 208
Swimming pool (chlorine + pH) •	pH 6.9-7.2-7.4-7.6-7.8-8.2	150	18		931 090	931 290
	<0.1-0.1-0.2-0.3-0.4-0.6-0.9-1.2-2.0 mg/l Cl_2	150	18			
Zinc •	0-0.5-1-2-3 mg/l Zn	120	12	ECO	931 098	931 298

• suitable for sea water analysis (see instruction leaflet)

Portable water laboratories

The handy and light-weight *VISOCOLOR*® kits are perfectly suitable for use in portable water laboratories. The rugged *VISOCOLOR*® reagent cases contain thermoformed-linings, which hold all requisite reagents and analytical accessories tightly in their place. *VISOCOLOR*® reagent cases are available with and without the portable photometer PF-11. Both types are available with pre-packed test kits or as empty cases for individual user-defined combination.

VISOCOLOR® reagent cases without photometer PF-11

VISOCOLOR® *ECO* reagent case — Cat. No. 931 001
With 7 *VISOCOLOR*® *ECO* test kits (ammonium, carbonate hardness, total hardness, nitrate, nitrite, pH, phosphate)

VISOCOLOR® *ECO* reagent case without test kits — Cat. No. 931 100
For individual combination of up to 7 test kits of type *VISOCOLOR*® *ECO*

VISOCOLOR® reagent case — Cat. No. 931 302
With 7 *VISOCOLOR*® test kits (alkalinity, ammonium, total hardness, nitrite, pH, phosphate, oxygen) and thermometer

VISOCOLOR® reagent case without test kits — Cat. No. 931 307
For individual combination of up to 9 test kits of type *VISOCOLOR*® *ECO* and *VISOCOLOR*® titration test kits

VISOCOLOR® reagent case **for soil analysis** (nutrients, e.g. P, K and N) — Cat. No. 914 601

VISOCOLOR® reagent cases with photometer PF-11

VISOCOLOR® reagent case "Environmental analysis" — Cat. No. 914 304
With photometer PF-11 and 8 *VISOCOLOR*® tests kits (ammonium, carbonate hardness, iron, total hardness, nitrate, nitrite, pH, phosphate)

VISOCOLOR® reagent case with PF-11 (without test kits) — Cat. No. 914 309
For individual combination of up to 9 *VISOCOLOR*® *ECO* and *VISOCOLOR*® titration test kits

Increase accuracy and reproducibility of *VISOCOLOR*® test kits. Use them on photometers *VISOCOLOR*® photino and PF-11!

Photometer *VISOCOLOR*® photino

Portable photometer for drinking water and pool analysis. Complete as portable water laboratory for detection of chlorine, pH and cyanuric acid.

⊕ EPA approved chlorine method

⊕ Easy to use instrument (two button operation)

⊕ Automatic measurement (auto switch technology)

⊕ Economic power management (up to 2000 measurements in the field)

⊕ Future-proof technology for accurate results

⊕ Modern optics (no light shields necessary)

⊕ Best cost performance ratio

Photometer *VISOCOLOR*® photino **Cat. No. 931 300.1**

Complete in carrying case with 3 batteries, 4 test tubes, 10 ml syringe, funnel, 25 ml plastic beaker, instrument manual and test instructions

Suitable for the following ***VISOCOLOR*® *ECO* refill reagents**.

Chlorine 2	0.10 - 2.50 mg/l Cl_2	Cat. No. 931 215 (free and total)	Cat. No. 931 216 (free)
Chlorine 6	0.05 - 6.00 mg/l Cl_2	Cat. No. 931 217 (free and total)	Cat. No. 931 219 (free)
pH 6.0 - 8.2	pH 6.0 - 8.2	Cat. No. 931 270	
Cyanuric Acid	10 - 100 mg/l Cya	Cat. No. 931 223	

Ask for special photino flyer

Photometer PF-11

Portable multiparameter photometer for analysis of water and drinking water. In combination with ***VISOCOLOR*® *ECO*** reagents, the PF-11 gives most accurate results, with higher precision and better reproducibility than with visual evaluation.

The photometer PF-11 offers an easy start into photometric water analysis. It's acknowledged by professional analysts and appreciated by chemical laymen.

⊕ Battery and mains operable

⊕ More than 100 preprogrammed calibrations

⊕ Direct reading in mg/l

⊕ Suitable for COD test tubes

⊕ Large display with clear user guidance in 8 languages

⊕ Interface for data transfer to a PC

Photometer PF-11 **Cat. No. 919 05**

Complete in carrying case with 4 rechargeable batteries, charger, 2 test tubes, funnel, manual
Suitable for colorimetric ***VISOCOLOR*® *ECO* refill reagents**.

Ask for special PF-11 flyer

Agriculture and floriculture (soil analysis)

Ammonium
Calcium
Carbonate Hardness
Chloride
Chlorine
Copper
Cyanide
Hardness
Iron
Magnesium
Nitrate
Nitrite
pH
Phosphate
Potassium

Aquaculture and fish farming

Ammonium
Calcium
Carbonate Hardness
Cyanide
Hardness
Iron
Magnesium
Manganese
Nitrate
Nitrite
Oxygen
pH
Phosphate
Sulphide

Boiler feed water

Calcium
Carbonate Hardness
Chloride
Copper
DEHA
Hardness
Hydrazine
Iron
Magnesium
Oxygen
pH
Phosphate
Residual Hardness
Silica
Sulphate
Sulphite
Zinc

Breweries

Alkalinity
Aluminium
Ammonium
Calcium
Carbonate Hardness
Chloride
Chlorine
Copper
Detergents
Hardness
Hydrazine
Iron
Magnesium
Manganese
Nitrate
Nitrite
pH
Phosphate
Residual Hardness
Sulphate

Cement and concrete production

Ammonium
Calcium
Carbonate Hardness
Chloride
Chromium/Chromate
Hardness
Magnesium
Nitrate
pH
Sulphate

Chemical industries

Alkalinity
Ammonium
Calcium
Carbonate Hardness
Chloride
Chlorine
Chromium/Chromate
Copper
Cyanide
Detergents
DEHA
Fluoride
Hardness
Hydrazine
Iron
Magnesium
Manganese
Nickel
Nitrate
Nitrite
Oxygen
pH
Phosphate
Potassium
Residual Hardness
Silica
Sulphate
Sulphide
Sulphite
Zinc

Cooling water

Calcium
Carbonate Hardness
Chloride
Chlorine
Hardness
Iron
Magnesium
Manganese
Nitrate
pH
Phosphate
Residual Hardness
Sulphate

Schools and environmental education

Ammonium
Hardness
Nitrate
Oxygen
pH
Phosphate

Drinking water

Aluminium
Ammonium
Calcium
Carbonate Hardness
Chloride
Chlorine
Chromium/Chromate
Copper
Cyanide
Fluoride
Hardness
Iron
Magnesium
Manganese
Nickel
Nitrate
Nitrite
pH
Sulphate

Electroplating industries

Aluminium
Ammonium
Calcium
Chloride
Chlorine
Chromium/Chromate
Copper
Cyanide
Fluoride
Iron
Nitrate
Nitrite
pH
Phosphate
Sulphate
Sulphide
Sulphite
Zinc

Food and beverage industries

Aluminium
Ammonium
Calcium
Carbonate Hardness
Chloride
Chlorine
Chromium/Chromate
Copper
Cyanide
Fluoride
Hardness
Iron
Magnesium
Manganese
Nitrate
Nitrite
pH
Phosphate
Residual Hardness
Sulphate
Sulphide
Sulphite
Zinc

Industrial waste water

Aluminium
Ammonium
Chloride
Chlorine
Chromium/Chromate
Copper
Cyanide
Detergents
Iron
Manganese
Nitrate
Nitrite
Oxygen
pH
Phosphate
Sulphate
Sulphide
Sulphite
Zinc

Leather industries

Ammonium
Calcium
Chloride
Chromium/Chromate
Hardness
Magnesium
pH
Phosphate
Residual Hardness
Sulphate
Sulphide
Sulphite

Metal processing industries

Aluminium
Ammonium
Chloride
Chlorine
Chromium/Chromate
Copper
Cyanide
Detergents
Iron
Manganese
Nickel
Nitrate
Nitrite
pH
Phosphate
Sulphate
Sulphide
Sulphite
Zinc

Milk industries

Ammonium
Carbonate Hardness
Calcium
Chlorine
Detergents
Iron
Magnesium
pH
Phosphate

Municipal waste water

Ammonium
Nitrate
Nitrite
pH
Phosphate

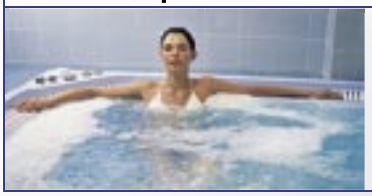
Paper industries

Calcium
Carbonate Hardness
Chlorine
Hardness
Magnesium
pH
Residual Hardness

Photo industries

Alkalinity
Calcium
Carbonate Hardness
Chloride
Chlorine
Chromium/Chromate
Copper
Cyanide
Detergents
Hardness
Iron
Magnesium
Nitrite
Oxygen
pH

Pool and spa care



Aluminium
Ammonium
Bromine
Carbonate Hardness
Chlorine
Cyanuric Acid
pH

Surface water and sea water

Aluminium
Ammonium
Calcium
Carbonate Hardness
Chloride
Chlorine
Copper
Cyanide
Detergents
Hardness
Iron
Magnesium
Manganese
Nickel
Nitrate
Nitrite
Oxygen
pH
Phosphate
Residual Hardness
Sulphate
Sulphide
Zinc

Textile industries

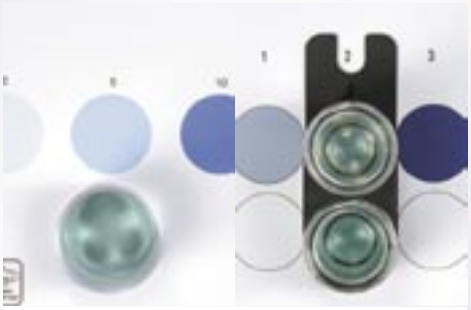
Aluminium
Alkalinity
Calcium
Carbonate Hardness
Chlorine
Chromium/Chromate
Copper
Hardness
Magnesium
Nickel
pH
Potassium
Residual Hardness
Sulphide
Sulphite
Zinc

visocolor® in brief

VISOCOLOR® test kits are reagent sets for the analysis of water. They are based on visual test methods (colorimetry and titration) and do not require any additional instrumentation. Each test kit is designed for the detection of one particular parameter in water (from A as Aluminium to Z as Zinc) and contains specific chemicals and accessories for this determination. The reagents are prepared for instant use. Results are given in concentration units (mg/l). Depending on required accuracy, precision and sensitivity, the analyst can select *VISOCOLOR*® test kits from various product lines: ***VISOCOLOR*® *alpha,* *ECO*** and ***HE***. Accuracy, precision and sensitivity of the analysis increases from ***alpha*** to ***ECO*** to ***HE***.

VISOCOLOR® in brief

- test kits for water analysis
- complete mini-laboratories with reagents and accessories
- one test kit per parameter
- reagent cases with individual combination of test kits available
- economically priced refill packs available
- applicable for water analysis without any prior experience in chemistry
- suitable for analysis in the field and in the lab
- based on visual colorimetry and volumetric analysis (titration)
- different levels of accuracy from consumer use up to professional use
- high selectivity
- low susceptibility towards interferences
- photometric determination possible



Coloured sample: without colour compensation — with colour compensation

Clear dosing instructions

Handling and Storage

- colour coded reagent bottles for clear identification of reagents
- fast dissolving reagents, no crushing of tablets, no stirring
- turbidity and colour compensation
- shelf life up to 3 years
- storage at 25 °C; dry and protected from direct sunlight
- up to 500 tests per kits
- instructions in many languages and with pictographs
- conversation table for alternative chemical forms
- easy to dispose after use

Handmade printing colours for quality colour cards

Reliability

VISOCOLOR® test kits are based on established reaction principles, which are described in various internationally acknowledged regulations (EPA, ISO, EN normes).

Accuracy and Precision

Accuracy, precision and reproducibility of visual test kits are defined by the printing quality of the colour comparison cards. During the printing process, each *VISOCOLOR*® colour card is adjusted to the original colour of a series of freshly prepared standard solutions of corresponding concentrations. Thus only original *VISOCOLOR*® colour cards show the real and true reaction colours. This is the secret of the outstanding precision of *VISOCOLOR*® kits. It allows printing of gradations with small increments and the design of highly sensitive test kits with extremely low detection limits (0.002 ppm). Photometric evaluation of *VISOCOLOR*® test kits provides evidence of their high quality. On photometers of MACHEREY-NAGEL measurement accuracy of up to 0.02 ppm can be achieved with *VISOCOLOR*® reagents.

Small gradations - low detection limits

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MACHEREY-NAGEL

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · D-52355 Düren · Germany

Germany and international:
Tel.: +49 (0) 24 21 96 90
Fax: +49 (0) 24 21 96 91 99
e-mail: sales-de@mn-net.com

Switzerland:
MACHEREY-NAGEL AG
Tel.: +41 (0) 62 388 55 00
Fax: +41 (0) 62 388 55 05
e-mail: sales-ch@mn-net.com

France:
MACHEREY-NAGEL EURL
Tel.: +33 (0) 3 88 68 22 68
Fax: +33 (0) 3 88 51 76 88
e-mail: sales-fr@mn-net.com