Test strips for semi-quantitative determinations

Description of individual parameters and tests

QUANTOFIX® – Quick, easy, safe

QUANTOFIX® test strips meet all requirements of a modern rapid test. They are immediately ready-to-use and can be utilized right away at the point of interest. To run a test you don't need any equipment or accessories. Thus, you safe time and work more economically.

Ordering information

Test	Gradation	REF
QUANTOFIX® Active oxygen	0 · 4 · 8 · 15 · 25 mg/L KMPS	**913 49**
QUANTOFIX® Aluminum* [1]	0 · 5 · 20 · 50 · 200 · 500 mg/L Al^{3+}	**913 07**
QUANTOFIX® Ammonium* [1]	0 · 10 · 25 · 50 · 100 · 200 · 400 mg/L NH_4^+	**913 15**
QUANTOFIX® Arsenic 10* [1]	0 · 0.01 · 0.025 · 0.05 · 0.1 · 0.5 mg/L $As^{3+/5+}$	**913 34**
QUANTOFIX® Arsenic 50* [1]	0 · 0.05 · 0.1 · 0.5 · 1.0 · 1.7 · 3.0 mg/L $As^{3+/5+}$	**913 32**
QUANTOFIX® Arsenic Sensitive* [1]	0 · 0.005 · 0.01 · 0.025 · 0.05 · 0.1 · 0.25 · 0.5 mg/L $As^{3+/5+}$	**913 45**
QUANTOFIX® Ascorbic acid	0 · 50 · 100 · 200 · 300 · 500 · 700 · 1000 · 2000 mg/L vitamin C	**913 14**
QUANTOFIX® Calcium* [1] [2]	0 · 10 · 25 · 50 · 100 mg/L Ca^{2+}	**913 24**
QUANTOFIX® Carbonate hardness	0 · 3.8 · 7.5 · 12.5 · 18.8 · 25.0 °e	**913 23**
QUANTOFIX® Chloride	0 · 500 · 1000 · 1500 · 2000 · ≥ 3000 mg/L Cl^-	**913 21**
QUANTOFIX® Chlorine* [1]	0 · 1 · 3 · 10 · 30 · 100 mg/L Cl_2	**913 17**
QUANTOFIX® Chlorine Sensitive CE	0 · 0.1 · 0.5 ·1 ·3 ·10 mg/L Cl_2	**913 39**
QUANTOFIX® Chromate* [1]	0 · 3 · 10 · 30 · 100 mg/L CrO_4^{2-}	**913 01**
QUANTOFIX® Cobalt	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L Co^{2+}	**913 03**
QUANTOFIX® Copper	0 · 10 · 30 · 100 · 300 mg/L $Cu^{+/2+}$	**913 04**
QUANTOFIX® Cyanide* [1]	0 · 1 · 3 · 10 · 30 mg/L CN^-	**913 18**
QUANTOFIX® EDTA	0 · 100 · 200 · 300 · 400 mg/L EDTA	**913 35**
QUANTOFIX® Formaldehyde* [1]	0 · 10 · 20 · 40 · 60 · 100 · 200 mg/L HCHO	**913 28**
QUANTOFIX® Glucose	0 · 50 · 100 · 250 · 500 · 1000 · 2000 mg/L glucose	**913 48**
QUANTOFIX® Glutaraldehyde CE	0 · 0.5 · 1 · 1.5 · 2 · 2.5 % glutaraldehyde	**913 43**
QUANTOFIX® Total iron 100	0 · 2 · 5 · 10 · 25 · 50 · 100 mg/L $Fe^{2+/3+}$	**913 44**
QUANTOFIX® Total iron 1000	0 · 5 · 20 · 50 · 100 · 250 · 500 · 1000 mg/L $Fe^{2+/3+}$	**913 30**
QUANTOFIX® LubriCheck	0 · 15 · 50 · 75 · 130 · 200 mmol/L KOH	**913 36**
QUANTOFIX® Molybdenum* [1]	0 · 5 · 20 · 50 · 100 · 250 mg/L Mo^{6+}	**913 25**
QUANTOFIX® Nickel	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L Ni^{2+}	**913 05**
QUANTOFIX® Nitrate 100 NEW!	0 · 5 · 10 · 25 · 50 · 75 · 100 mg/L NO_3^-	**913 51**
QUANTOFIX® Nitrate / Nitrite	0 · 10 · 25 · 50 · 100 · 250 · 500 mg/L NO_3^- 0 · 1 · 5 · 10 · 20 · 40 · 80 mg/L NO_2^-	**913 13**
QUANTOFIX® Nitrite	0 · 1 · 5 · 10 · 20 · 40 · 80 mg/L NO_2^-	**913 11**
QUANTOFIX® Nitrite 3000	0 · 0.1 · 0.3 · 0.6 · 1 · 2 · 3 g/L NO_2^-	**913 22**
QUANTOFIX® Nitrite / pH	0 · 1 · 5 · 10 · 20 · 40 · 80 mg/L NO_2^- pH 6.0 · 6.4 · 6.7 · 7.0 · 7.3 · 7.6 · 7.9 · 8.2 · 8.4 · 8.6 · 8.8 · 9.0 · 9.3 · 9.6	**913 38**
QUANTOFIX® Peracetic acid 50 CE	0 · 5 · 10 · 20 · 30 · 50 mg/L peracetic acid	**913 40**
QUANTOFIX® Peracetic acid 500 CE	0 · 50 · 100 · 200 · 300 · 400 · 500 mg/L peracetic acid	**913 41**
QUANTOFIX® Peracetic acid 2000 CE	0 · 500 · 1000 · 1500 · 2000 mg/L peracetic acid	**913 42**
QUANTOFIX® Peroxide 25	0 · 0.5 · 2 · 5 · 10 · 25 mg/L H_2O_2	**913 19**
QUANTOFIX® Peroxide 100 CE	0 · 1 · 3 · 10 · 30 · 100 mg/L H_2O_2	**913 12**
QUANTOFIX® Peroxide 1000	0 · 50 · 150 · 300 · 500 · 800 · 1000 mg/L H_2O_2	**913 33**
QUANTOFIX® Phosphate* [1]	0 · 3 · 10 · 25 · 50 · 100 mg/L PO_4^{3-}	**913 20**
QUANTOFIX® Potassium [1]	0 · 200 · 400 · 700 · 1000 · 1500 mg/L K^+	**913 16**
QUANTOFIX® QUAT	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L benzalkonium-chloride	**913 37**
QUANTOFIX® Silver	0 · 1 · 2 · 3 · 5 · 7 · 10 g/L Ag^+	**913 50**
QUANTOFIX® Sulfate	< 200 · > 400 · > 800 · > 1200 · > 1600 mg/L SO_4^{2-}	**913 29**

Presentation: Container with 100 test strips 6 x 95 mm

[1] The tests are supplied complete with all reagents required for the determination

[2] Presentation: Container with 60 test strips [3] Presentation: Container with 25 test strips

CE: CE-marked according to the directive for medical products 93/42/EWG

* This product contains harmful substances which must be specially labeled as hazardous. For detailed information please see MSDS.

Test strips for semi-quantitative determinations

Description of individual parameters and tests

Test	Gradation	REF
QUANTOFIX® Sulfite	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L SO_3^{2-}	**913 06**
QUANTOFIX® Tin	0 · 10 · 25 · 50 · 100 · 250 · 500 mg/L Sn^{2+}	**913 09**
QUANTOFIX® Zinc* [1)]	0 · 2 · 5 · 10 · 25 · 50 · 100 mg/L Zn^{2+}	**913 10**
QUANTOFIX® Multi-stick for aquarium owners	total hardness 0 · 6.3 · 12.5 · 18.8 · 25.0 · 31.3 °e carbonate hardness 0 · 3.8 · 7.5 · 12.5 · 18.8 · 25.0 °e pH 6.4 · 6.8 · 7.2 · 7.6 · 8.0 · 8.4	**913 26** **913 27** [3)]

Presentation: Container with 100 test strips 6 x 95 mm
[1)] The tests are supplied complete with all reagents required for the determination
[2)] Presentation: Container with 60 test strips [3)] Presentation: Container with 25 test strips
CE: CE-marked according to the directive for medical products 93/42/EWG
* This product contains harmful substances which must be specially labeled as hazardous. For detailed information please see MSDS.

QUANTOFIX® Active oxygen — REF 913 49

This test strip is for the fast and easy determination of active oxygen or potassium monopersulfate (MPS) respectively, e.g. in swimming pools. The easy Dip & Read procedure provides reliable results within 30 seconds.

So-called active oxygen is used in swimming pools as an alternative to chlorine for disinfection purposes. Therefore MPS is often added to the water.

The respective content can be easily determined with the test strip to assure a safe disinfection.

Type:	test strips
Range:	0 · 4 · 8 · 15 · 25 mg/L KMPS
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change	yellow → green

QUANTOFIX® Aluminum — REF 913 07

This test allows the quick and easy determination of aluminum in solutions. It comes with all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 2 minutes.

Aluminum is the third most abundant element in the earth's crust. In nature, aluminium only occurs in chemical compounds. In early stages of water treatment, aluminum compounds called alums are used as coagulation aids.

QUANTOFIX® Aluminum is used to check the integrity of the filtering system.

Type:	test strips and reagents
Range:	0 · 5 · 20 · 50 · 200 · 500 mg/L Al^{3+}
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	pink → red

QUANTOFIX® Ammonium — REF 913 15

This test allows the quick and easy determination of ammonium in solutions. It comes with all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 10 seconds.

In nature, ammonia results from the biological decay of organic matter. High concentrations can be found in rural, farming areas where fertilizers are regularly used. Also, industrial effluents may contain ammonia in higher levels. Ammonia itself is relatively harmless. Depending on the pH, however, part of the ammonium is transformed to the aggressive NH_3-gas, which is poisonous to aquatic life. Ammonium levels > 1 mg/L are not suitable for fish.

As an indicator for decomposition of animal or vegetable substances, control of ammonium is also important for the water supply.

Type:	test strips and reagents
Range:	0 · 10 · 25 · 50 · 100 · 200 · 400 mg/L NH_4^+
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	bright yellow → orange

QUANTOFIX® Arsenic 10 — REF 913 34

This test allows the quick and easy determination of arsenic in solutions. It comes with all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 10 minutes.

As a naturally occurring element, arsenic is widely distributed in the Earth's crust. In the natural environment it is most frequently present as inorganic arsenic compound in combination with sulphur or oxygen. Organic arsenic compounds can be used as pesticides.

Arsenic is toxic and causes skin diseases, keratosis and melanoma. Therefore, arsenic levels in drinking water have to be monitored thoroughly.

The WHO recommends a threshold value for drinking water of 0.01 mg/L. This concentration can reliably be monitored with QUANTOFIX® Arsenic 10.

Type:	test strips and reagents
Range:	0.01 · 0.025 · 0.05 · 0.1 · 0.5 mg/L $As^{3+/5+}$
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → yellow-brown

Test strips for semi-quantitative determinations

Description of individual parameters and tests

QUANTOFIX® Arsenic 50 — REF 913 32

Similar to QUANTOFIX® Arsenic 10 but different range.

Type:	test strips and reagents
Range:	0 · 0.05 · 0.1 · 0.5 · 1.0 · 1.7 · 3.0 mg/L $As^{3+/5+}$
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → yellow-brown

QUANTOFIX® Arsenic Sensitive — REF 913 45

Similar to QUANTOFIX® Arsenic 10 but more sensitive and faster.

Type:	test strips and reagents
Range:	0 · 0.005 · 0.01 · 0.025 · 0.05 · 0.1 · 0.25 · 0.5 mg/L $As^{3+/5+}$
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → yellow-brown

QUANTOFIX® Ascorbic acid — REF 913 14

This test strip is for the rapid and reliable determination of ascorbic acid in food. The easy Dip & Read procedure provides a reliable result within 30 seconds.

Ascorbic acid or vitamin C is naturally found in many foods and vegetables. It is also added to juices or fruits as stabilizing and reducing agent. QUANTOFIX® Ascorbic acid allows the quick and easy determination of vitamin C in fruit juices as well as on fresh cut surfaces of fruits and vegetables.

Type:	test strips
Range:	0 · 50 · 100 · 200 · 300 · 500 · 700 · 1000 · 2000 mg/L vitamin C
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → green-blue

QUANTOFIX® Calcium — REF 913 24

This test allows the quick and easy determination of calcium in solutions. The kit contains with all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 1 minute.

Calcium is an important element in nutrition and is therefore tested in foodstuff. It is essential for the building of human bones. Lack of calcium in the daily diet may lead to osteoporosis. The recommended consumption is about 1000 mg/day.

In combination with magnesium, calcium is responsible for water hardness.

Type:	test strips and reagents
Range:	0 · 10 · 25 · 50 · 100 mg/L Ca^{2+}
Sufficient for:	60 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → red

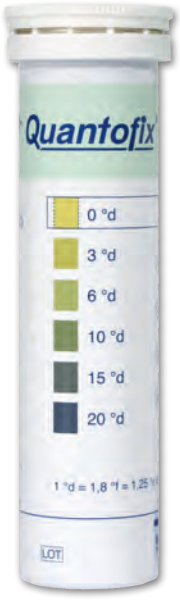
QUANTOFIX® Carbonate hardness — REF 913 23

This test strip is for the fast and reliable determination of alkalinity or carbonate hardness in water. The easy Dip & Read procedure provides a reliable result within 30 seconds.

Carbonate hardness or alkalinity is a measure for the water's pH buffer capacity. If the carbonate hardness is higher, addition of acids or bases will have a lower influence on the resulting pH. Sudden and rapid pH changes of the water are avoided.

QUANTOFIX® Carbonate hardness is used for the quick and easy control of water in swimming pools and aquariums.

Type:	test strips
Range:	0 · 3.8 · 7.5 · 12.5 · 18.8 · 25.0 °e
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	bright green → blue



Test strips for semi-quantitative determinations

Description of individual parameters and tests

QUANTOFIX® Chloride — REF 913 21

This test strip is for the fast and reliable determination of chloride in solutions. The easy Dip & Read procedure provides a reliable result within 1 minute.

Chloride ions occur in all natural waters. Their concentration depends on the geological and local situation. In waste waters and polluted rivers the chloride concentration can reach high values. In combination with sodium, chloride forms NaCl or table salt.

Type:	test strips
Range:	0 · 500 · 1000 · 1500 · 2000 · ≥ 3000 mg/L Cl^-
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production at 2–8 °C
Color change:	brown → yellow

QUANTOFIX® Chlorine — REF 913 17

This test allows the quick and easy determination of chlorine in solutions. It comes with all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 1 minute.

Chlorine is widely used for disinfection of swimming pools, water mains and water reservoirs. Dosed correctly, harmful microorganisms are safely destroyed, many impurities removed and the growth of algae is prevented. Electroplaters use chlorine for the detoxification of cyanide-containing waste.

Regular checking of the chlorine concentration is essential to keep it at the desired level. Excessive chlorine not only impairs the smell and taste of water but can also be hazardous.

In water chlorine occurs either free or bound for example as chloramines. Total chlorine is the sum of both levels.

For the sensitive determination of chlorine in swimming pools we recommend our swimming pool tests (s. page 38)

Type:	test strips and reagents
Range:	0 · 1 · 3 · 10 · 30 · 100 mg/L Cl_2
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → red-violet

QUANTOFIX® Chlorine Sensitive — REF 913 39

This test allows the quick and easy detection of low levels of total chlorine (total chloramines). The easy Dip & Read procedure provides reliable results within 30 seconds.

In dialysis centres QUANTOFIX® Chlorine Sensitive is used to check feed water. Low levels of total chlorine (total chloramines) are necessary to ensure optimal function of further water purification such as reversed osmosis. It also provides a fast and convenient means to test for residual chlorine in rinse water after disinfection.

Type:	test strips
Range:	0 · 0.1 · 0.5 · 1 · 3 · 10 mg/L Cl_2
Sufficient for:	100 tests
Shelf life:	at least 2 years after production
Color change:	yellow → violett

QUANTOFIX® Chromate — REF 913 01

This test allows the quick and easy determination of chromate in solutions. It includes all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 30 seconds.

Many chromate compounds are poisonous and carcinogenic. They are used for example in chrome plating and tanning. QUANTOFIX® Chromate is used for the easy monitoring of water discharged from such plants.

Type:	test strips and reagents
Range:	0 · 3 · 10 · 30 · 100 mg/L CrO_4^{2-}
Sufficient for:	100 tests
Shelf life:	at least 2 years after production
Color change:	white → violet

QUANTOFIX® Cobalt — REF 913 03

This test strip is for the fast and reliable determination of cobalt in solutions. The easy Dip & Read procedure provides a reliable result within 20 seconds.

Cobalt is also used for metal alloys and can in other compounds be part of catalysts. QUANTOFIX® Cobalt is used to monitor waste water and for non-destructive testing of materials.

Type:	test strips
Range:	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L Co^{2+}
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → green-blue

QUANTOFIX® Copper — REF 913 04

This test strip is for the fast and reliable determination of copper in solutions. The easy Dip & Read procedure provides a reliable result within 20 seconds.

Copper or copper-compounds are used for electroplating processes, the production of water pipes etc. QUANTOFIX® Copper is used for the quick and easy monitoring of electroplating solutions, waste water, tap water and in many other applications.

Type:	test strips
Range:	0 · 10 · 30 · 100 · 300 mg/L $Cu^{+/2+}$
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → red-violet

Test strips for semi-quantitative determinations

Description of individual parameters and tests

QUANTOFIX® Cyanide — REF 913 18

This test allows the quick and easy determination of cyanide in solutions. It includes all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 3 minutes.

Cyanide is extremely poisonous. The lethal dose is 1 mg/kg weight. Careful control of the cyanide concentration is therefore essential, whenever cyanides are used for industrial processes like for example electroplating or gold-mining. Cyanide control is also important during the production of fruit-brandies made from stone fruits.

Type:	test strips and reagents
Range:	0 · 1 · 3 · 10 · 30 mg/L CN^-
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → violet

QUANTOFIX® EDTA — REF 913 35

This test strip is for the fast and reliable determination of EDTA, NTA and other complexing agents in solutions. The easy Dip & Read procedure provides a reliable result within 15 seconds.

Complexing agents like EDTA (Ethylendiaminetetraacetate) or NTA (Nitrilotriacetic acid) have replaced phosphates as additives in washing and cleaning solutions. QUANTOFIX® EDTA is therefore ideal to check the concentration of washing and cleaning solutions.

In proteomics labs EDTA is also used to regenerate Ni- and Co-precharged chromatography columns (HPLC columns) which are used to purify recombinant proteins. Prior to the successive analysis, QUANTOFIX® EDTA is used to control if EDTA has completely rinsed out. This may dramatically reduce the rinse time and therefore increase the throughput and the capacity.

The following complexing agents can also be determined: nitrilotriacetic acid (NTA), cyclohexanedinitrilo-(1,2)-tetraacetic acid, diethyltrinitrilopentaacetic acid, bis(aminoethyl) glykol-ether-*N,N,N',N'*-tetraacetic acid.
Conversion factor: 1 mg/L EDTA = 0.7 mg/L NTA

Type:	test strips
Range:	0 · 100 · 200 · 300 · 400 mg/L EDTA
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	red → yellow

QUANTOFIX® Formaldehyde — REF 913 28

This test allows the quick and easy determination of formaldehyde. It comes with all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 1 minute.

Formaldehyde is used for a large variety of products, ranging from shampoo to clothes. In large quantities it is used as raw material in the chemical industry. Formaldehyde is poisonous and can cause allergic reactions as well as irritations of skin, eyes and air passages. If such reactions are observed after contact with suspicious substances it may be useful to control the formaldehyde concentration.

In closed cooling or heating circuits formaldehyde is used as biocide. Here, QUANTOFIX® Formaldehyde serves to easily monitor the system.

Type:	test strips and reagents
Range:	0 · 10 · 20 · 40 · 60 · 100 · 200 mg/L HCHO
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	beige → blue-violet

QUANTOFIX® Glucose — REF 913 48

This test strip is for the easy and reliable detection of glucose in solutions. The simple Dip & Read procedure provides reliable results within 30 seconds.

Glucose is a major part in most foods, in potatoes for example, the glucose content is an important quality criterion.

Type:	test strips
Range:	0 · 50 · 100 · 250 · 500 · 1000 · 2000 mg/L glucose
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → blue-green

QUANTOFIX® Glutaraldehyde — REF 913 43

This test strip is for the fast and reliable determination of glutaraldehyde in solutions. The easy Dip & Read procedure provides reliable results in 20 seconds.

Glutaraldehyde is a strong disinfectant. It is, for example, often used in healthcare and medical engineering to disinfect surgical instruments and equipment. QUANTOFIX® Glutaraldehyde allows to check whether the glutaraldehyde concentration is sufficient for proper disinfection. Thus, a safe disinfection is ensured.

Type:	test strips
Range:	0 · 0.5 · 1 · 1.5 · 2 · 2.5 % glutaraldehyde
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	bright orange → magenta

Test strips for semi-quantitative determinations

Description of individual parameters and tests

QUANTOFIX® Total iron 1000 REF 913 30

Without additional reagents – easy Dip & Read procedure

This test is designed for easily determining total iron in solutions. The easy Dip & Read procedure provides reliable results within 20 seconds.

In various industries, iron is used for pipes and containers. Iron determination is an important corrosion indicator. In drinking water, iron is not desirable, as it leads to unpleasant odors and brownish discolorations.

Type:	test strips
Range:	0 · 5 · 20 · 50 · 100 · 250 · 500 · 1000 mg/L Fe^{2+}/Fe^{3+}
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → dark red

QUANTOFIX® Total iron 100 REF 913 44

Without additional reagents – easy Dip & Read procedure

Similar to QUANTOFIX® Total iron 1000, but with higher sensitivity and a reaction time of 60 seconds.

Type:	test strips
Range:	0·2·5·10·25·50·100 mg/L Fe^{2+}/Fe^{3+}
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → blue-purple

QUANTOFIX® LubriCheck REF 913 36

Using this test strip the concentration of cooling lubricants can quickly be determined. The easy Dip & Read procedure provides a reliable result within 1 minute.

Cooling lubricants are used when metal parts are being machined (drilling, cutting...). Using QUANTOFIX® LubriCheck the concentration of the cooling lubricant can easily be checked on the spot. This ensures optimal cooling and lubrication and at the same time optimal quality of the work piece. The measurement with QUANTOFIX® LubriCheck is rapid and reliable and can easily be performed by chemically untrained persons. Other methods used so far either require sensitive instruments (measurement of the refraction index) or have to be performed in the laboratory (determination after digestion).

The concentration is detected and given as mmol/L KOH. Using a factor the result can easily be transferred to the concentration of the cooling lubricant.

Type:	test strips
Range:	0 · 15 · 50 · 75 · 130 · 200 mmol/L KOH
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → blue

QUANTOFIX® Molybdenum REF 913 25

This test allows the quick and easy determination of molybdenum in solutions. It includes all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 1 minute.

Molybdenum tests are mainly used for coolant water and boiler feed water. Here, molybdenum salts act as corrosion inhibitors, either directly or as part of an anticorrosive additive. The careful control of the molybdenum level is important to ensure optimal corrosion prevention. Also, the level of the anticorrosive additive can be easily controlled.

Type:	test strips and reagents
Range:	0 · 5 · 20 · 50 · 100 · 250 mg/L Mo^{6+}
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → green

QUANTOFIX® Nickel REF 913 05

This test strip is for the fast and reliable determination of nickel in solutions. The easy Dip & Read procedure provides a reliable result within 30 seconds.

Nickel is used in metal plating processes and for metal alloys. Metal parts that come into contact with skin are tested with QUANTOFIX® Nickel to prevent allergic reactions. The test is also used for the easy monitoring of electroplating solutions and industrial waste water.

Type:	test strips
Range:	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L Ni^{2+}
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → bright red

Test strips for semi-quantitative determinations

Description of individual parameters and tests

QUANTOFIX® Nitrate 100 NEW! REF 913 51

This test is the highly sensitive version of QUANTOFIX® Nitrate / Nitrite. It allows to detect nitrate down to 5 mg/L. The warning pad for nitrite detects concentrations down to 0.5 mg/L. This test is especially useful for dairy industry where low levels of nitrate need to be monitored.

Type:	test strips
Range:	0 · 5 · 10 · 25 · 50 · 75 · 100 mg/L NO_3^-
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → red-violet

QUANTOFIX® Nitrate / Nitrite REF 913 13

This test strip is for the fast and reliable determination of nitrate and nitrite in solutions. The easy Dip & Read procedure provides a reliable result within 1 minute.

Nitrite is an undesired byproduct in cooling lubricants. It allows the formation of carcinogenic compounds. Cooling lubricants are therefore regularly tested for nitrite.

In natural and drinking water nitrite can lead to infant mortality and kill aquatic life. The EPA primary drinking water standard is 1 mg/L.

Nitrate is a byproduct of biological decay from plant and animal matter. High concentrations can be found in rural, farming areas where fertilizers are regularly used. Also, industrial effluents may contain nitrate in higher levels. The EU threshold value is 50 mg/L and can safely be controlled with QUANTOFIX® Nitrate / Nitrite. Farmers use this test to control the nitrogen content in soil to estimate the amount of fertilizer needed. In ponds and aquariums nitrate is often tested instead of ammonium to control the water quality.

Type:	test strips
Range:	0 · 10 · 25 · 50 · 100 · 250 · 500 mg/L NO_3^- 0 · 1 · 5 · 10 · 20 · 40 · 80 mg/L NO_2^-
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → red-violet

QUANTOFIX® Nitrite REF 913 11

Similar to QUANTOFIX® Nitrate / Nitrite but only the nitrite test.

Type:	test strips
Range:	0 · 1 · 5 · 10 · 20 · 40 · 80 mg/L NO_2^-
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → red-violet

QUANTOFIX® Nitrite 3000 REF 913 22

Similar to QUANTOFIX® Nitrate / Nitrite but only the nitrite test and different range.

Type:	test strips
Range:	0 · 0.1 · 0.3 · 0.6 · 1 · 2 · 3 g/L NO_2^-
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → red

QUANTOFIX® Nitrite / pH REF 913 38

This test allows the quick and easy determination of nitrite and pH in cooling lubricants. The easy Dip & Read procedure provides a reliable result within 1 minute.

When metal parts are machined (drilling, cutting, ...) cooling lubricants or coolants are indispensable to guarantee the quality of the work piece as well as the lifetime of the machines.

QUANTOFIX® Nitrite / pH is for the rapid and reliable control of two important parameters in cooling lubricants.

The Nitrite test is an indicator for bacterial growth in the cooling lubricant cycle. It allows early counteractive measures and therefore increases the lifetime of the cooling lubricant. Thus, significant cost savings are possible.

A weekly determination of the nitrite concentration is also recommended to protect workers from carcinogenic nitrosamine. High levels of nitrite in the cooling lubricant foster the formation of this carcinogenic compound.

The pH test is specially optimized for the demands of cooling lubricant analysis. Short testing cycles allow an early detection of pH changes. Counteractive measures can be performed to keep the pH at the optimal level. This ensures optimal protection against corrosion, inhibits bacterial growth and therefore reduces maintenance costs.

Type:	test strips
Range:	0 · 1 · 5 · 10 · 20 · 40 · 80 mg/L NO_2^- pH 6.0 · 6.4 · 6.7 · 7.0 · 7.3 · 7.6 · 7.9 · 8.2 · 8.4 · 8.6 · 8.8 · 9.0 · 9.3 · 9.6
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → red-violet (NO_2^-) yellow/orange → violet/red (pH)

Test strips for semi-quantitative determinations

Description of individual parameters and tests

QUANTOFIX® Peracetic acid 50 REF 913 40

This test strip is for the fast and reliable determination of peracetic acid in solutions. The easy Dip & Read procedure provides safe results within 30 seconds.

Peracetic acid is a popular and widely used disinfectant. It is, for example, frequently used to disinfect packages in the beverage industry. After disinfection, packages are rinsed to wash out any remaining disinfectant. QUANTOFIX® Peracetic acid can check quickly and easily, if the disinfectant has been removed completely.

QUANTOFIX® Peracetic acid is specific to peracetic acid and does not, when adhering to the testing procedures, yield results for hydrogen peroxide.

Type:	test strips
Range:	0 · 5 · 10 · 20 · 30 · 50 mg/L peracetic acid
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → blue

QUANTOFIX® Peracetic acid 500 REF 913 41

Similar to QUANTOFIX® Peracetic acid 50 but different range.

Type:	test strips
Range:	0 · 50 · 100 · 200 · 300 · 400 · 500 mg/L peracetic acid
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → green

QUANTOFIX® Peracetic acid 2000 REF 913 42

Similar to QUANTOFIX® Peracetic acid 50 but different range.

Type:	test strips
Range:	0 · 500 · 1000 · 1500 · 2000 mg/L peracetic acid
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	bright yellow → red

QUANTOFIX® Peroxide 25 REF 913 19

This test strip is for the fast and reliable determination of peroxide in solutions. The easy Dip & Read procedure provides a reliable result within 15 seconds.

Hydrogen peroxide (H_2O_2) is one of the most powerful oxidizers known. Its disinfectant capabilities are higher than for chlorine (Cl_2) or chlorine dioxide (ClO_2). It is extensively used in the food and dairy industries. Here, peroxide tests are used to ensure that residual peroxide sanitizer has been fully purged from packages prior to the filling. This guarantees that the product has the optimal quality and is free from peroxide.

In chemical laboratories QUANTOFIX® Peroxide 25 is used to check organic solvents, because peroxide containing solvents may explode when heated. Moisten the test pad with the solvent and allow it to dry. After drying, add a drop of distilled water to the test pad. If the test pad remains white the solvent is free of peroxides and can safely be used.

Type:	test strips
Range:	0 · 0.5 · 2 · 5 · 10 · 25 mg/L H_2O_2
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → blue

QUANTOFIX® Peroxide 100 REF 913 12

Similar to QUANTOFIX® Peroxide 25 but different range.

Type:	test strips
Range:	0 · 1 · 3 · 10 · 30 · 100 mg/L H_2O_2
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → blue

QUANTOFIX® Peroxide 1000 REF 913 33

Similar to QUANTOFIX® Peroxide 25 but different range.

Type:	test strips
Range:	0 · 50 · 150 · 300 · 500 · 800 · 1000 mg/L H_2O_2
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → brown

Test strips for semi-quantitative determinations

Description of individual parameters and tests

QUANTOFIX® Phosphate — REF 913 20

This test allows the quick and easy determination of phosphate in solutions. It includes all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 90 seconds.

In surface water, the presence of high phosphate concentrations may indicate domestic waste discharge, fertilizer run-off or the presence of industrial effluents or detergents. The phosphate content of surface water has direct consequences for its ability to support growth of certain organisms. Very high phosphate intake may lead to an eutrophication of rivers and lakes leading finally to the death of aquatic life.

In the maintaining of cooling or heating systems QUANTOFIX® Phosphate is used for the rapid and reliable control of corrosion inhibitors

Type:	test strips and reagents
Range:	0 · 3 · 10 · 25 · 50 · 100 mg/L PO_4^{3-} (only ortho phosphate)
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → blue-green

QUANTOFIX® Potassium — REF 913 16

This test allows the quick and easy determination of potassium in solutions. It includes all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 1 minute.

The natural potassium content in ground water is generally about 1–2 mg/L K. Higher values may indicate fecal contaminations, but can also originate from potassium fertilizers. For the growth of plants and animals potassium is an essential factor. Especially in agriculture the determination of potassium therefore gains increasing importance.

Type:	test strips and reagents
Range:	0 · 200 · 400 · 700 · 1000 · 1500 mg/L K^+
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → orange

QUANTOFIX® QUAT — REF 913 37

This test strip is for the fast and reliable determination of quaternary ammonium compounds (QUAT) in solutions. The easy Dip & Read procedure provides a reliable result within 15 seconds.

Quaternary ammonium compounds are frequently used for the disinfection of medical devices, surfaces and closed cooling cycles. Using QUANTOFIX® QUAT, it can easily be controlled if the concentration of the disinfectant is sufficient. This ensures an optimal disinfection.
The test is calibrated for benzalkonium chloride. The packing insert contains conversion factors for many other quaternary ammonium compounds.

Test papers for quaternary ammonium compounds: see also INDIQUAT (see page 36)

Type:	test strips
Range:	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L benzalkonium chloride
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → blue-green

QUANTOFIX® Silver — REF 913 50

This test strip is for the fast and easy determination of silver in solutions.

After dipping the test strip into the sample a comparison with the color scale provides a reliable result within 20 seconds.

The fixation is the final process in the development of movies and photos, during which excess silver is being washed out. The silver content of the fixing bath can be easily monitored with these test strips.

Type:	test strips
Range:	0 · 1 · 2 · 3 · 5 · 7 · 10 g/L Ag^+
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → brown

Test strips for semi-quantitative determinations

Description of individual parameters and tests

QUANTOFIX® Sulfate — REF 913 29

This test strip is for the fast and reliable determination of sulfate in solutions. The easy Dip & Read procedure provides a reliable result within 2 minutes.

Sulfate is regularly found in natural waters. In cooling water and ion exchange systems sulfate must be monitored to prevent the formation of calcium sulfate (gypsum). The sulfate determination is also of importance to evaluate the aggressiveness of water towards concrete. In the beverage industry it is tested because of its effect on odor and taste.

Type:	test strips
Range:	< 200 · > 400 · > 800 · >1200 · > 1600 mg/L SO_4^{2-}
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	red → yellow

QUANTOFIX® Sulfite — REF 913 06

This test strip is for the fast and reliable determination of sulfite in solutions. The easy Dip & Read procedure provides a reliable result within 20 seconds.

In process and boiler water, sulfite is used as an oxygen scavenger. To avoid overdosage, the concentration needs to be controlled regularly. These tests are also used to control the sulfite concentration in foodstuff treated with sulphur compounds (SO_2, HSO_3^-, SO_3^{2-}) for longer shelf-life. In the process of wine making the control of sulfite is important to monitor production and quality of the wine.

Type:	test strips
Range:	0 · 10 · 25 · 50 · 100 · 250 · 500 · 1000 mg/L SO_3^{2-}
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → salmon

QUANTOFIX® Tin — REF 913 09

This test strip is for the fast and reliable determination of tin in solutions. The easy Dip & Read procedure provides a reliable result within 5 seconds.

In the beverage industry QUANTOFIX® Tin is used to control canned juices or food. Depending on the storage conditions and the quality of the tin plating, significant quantities of tin may get into the product, causing a negative aftertaste. The control of tin ensures the optimal quality of the food.

Type:	test strips
Range:	0 · 10 · 25 · 50 · 100 · 250 · 500 mg/L Sn^{2+}
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	white → dark blue

QUANTOFIX® Zinc — REF 913 10

This test allows the quick and easy determination of zinc in solutions. It includes all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 30 seconds.

Zinc provides an effective protective coating for steel (galvanized coatings) and is useful as an alloying agent. QUANTOFIX® Zinc is used to regularly check the plating baths in metal plating industry. Zinc salts are useful as corrosion inhibitors in cooling water treatment formulations. Here, the zinc concentration is monitored to ensure an optimal process.

Type:	test strips and reagents
Range:	0 · 2 · 5 · 10 · 25 · 50 · 100 mg/L Zn^{2+}
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	orange → red

QUANTOFIX® Multi stick for aquarium owners — REF 913 26 / 913 27

This test strip is for the fast and reliable determination of the water quality in aquariums. Within 60 seconds the easy Dip & Read procedure provides important information on the total alkalinity (carbonate hardness), total hardness and pH. The water quality can be improved at an early stage ensuring a good health of fish.

Type:	test strips
Range:	0 · 6.3 · 12.5 · 18.8 · 25.0 · 31.3 °e (total hardness) 0 · 3.8 · 7.5 · 12.5 · 18.8 · 25.0 °e (carbonate hardness) pH 6.4 · 6.8 · 7.2 · 7.6 · 8.0 · 8.4
Sufficient for:	100 (REF 913 26) or 25 tests (REF 913 27)
Shelf life:	at least 2.5 years after production
Color change:	green → red (total hardness) bright green → blue (carbonate hardness) yellow → red (pH)

Test strips for semi-quantitative determinations

Automated reader for test strips

QUANTOFIX® Relax

Optimized strip reading

The QUANTOFIX® Relax is a revolutionary step in test strip analysis. With this new system, MACHEREY-NAGEL offers an entirely objective way to read QUANTOFIX® test strips, making the system particularly suitable if results are critical to your decision making. The system simplifies testing procedures and the decision processes by eliminating the subjectivity of visual readings and by providing higher accuracy. Especially if you test large numbers of strips, the QUANTOFIX® Relax helps and supports you with easy result administration and quick testing procedures. Additionally, the QUANTOFIX® Relax allows you to get actual quantitative results – no gradation and estimation of in-between values is necessary.

The QUANTOFIX® Relax can change the way you work and test. The system enables you to focus on your core processes and is the perfect tool for your testing procedures.

Highest precision

- Quantitative results across the complete measuring range
- Higher accuracy and no in-between value guesswork
- Assure your decision making

Objective readings

- No influence of external light or human color perception
- Reproducible results independent of the operator
- Increase safety and comfort

Easy result administration

- Immediate print outs
- Data can be transferred to a computer
- Save time to focus on your core business

Optimized usability

Auto start

Place the strip on the instrument, the measurement starts automatically. So, operating is clean and easy.

Easily change tests

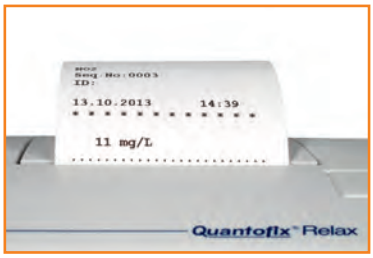
Select five different tests as your favorites out of a large variety of tests programmed into the instrument. With just two dips on the screen you can quickly change between your favorite tests.

Optimized result administration

Interface options

The instrument features an USB as well as an RS232 interface. It can easily be connected to existing laboratory information systems and also to PCs.

Printer



The result is printed using a fast and silent internal printer. Thus, you can easily staple the results to production files for later check or QC procedures.

Memory for 200 measurements

Up to 200 measurements can be stored. Using internal functions, positive readings are easily filtered out, enabling further diagnosis whenever necessary.

Test strips for semi-quantitative determinations

Automated reader for test strips

Technical data

Instrument memory	200 test results including sample ID
Interface	User: touch screen, alphanumeric input, password protection Computer: USB and RS 232 interface for connection to PC, PS/2 interface for connection of key-board and / or barcode scanner
Dimensions / Weight	Depth: 20 cm (7.9 inches) / Width: 16 cm (6.3 inches) / Height: 7.5 cm (3.0 inches) Weight: 710 g (1.90 lb), (w/o batteries and power supply)
Power requirements	110–240 V AC, automatic Battery powered operation (optional) with 6 AA batteries
Operation	Temperature range: 5–40 °C (41–104 °F) Humidity range: 20–80 % relative humidity, non condensing Calibration: automatic, self calibrating
Capacity	50 strips per hour

Ordering information

Test	Range	REF
Spare parts and accessories		
Reflectometer QUANTOFIX® Relax, suitable for evaluation of QUANTOFIX® test strips incl. power supply, adapter, manual and 1 roll of printer paper		**913 46**
Case for reflectometer QUANTOFIX® Relax, for individual combination with QUANTOFIX® Relax, 3 rolls of printer paper, 6 QUANTOFIX® tubes, 6 batteries, power supply and accessories		**930 889**
Printer paper for QUANTOFIX® Relax		**930 65**
Barcode scanner for QUANTOFIX® Relax		**930 74**
Tests calibrated on the instrument that can be run with the instrument software		
QUANTOFIX® Ammonium*	10–350 mg/L NH_4^+	**913 15**
QUANTOFIX® Ascorbic acid	50–1000 mg/L vitamin C	**913 14**
QUANTOFIX® Chlorine Sensitive	0.1–10 mg/L Cl_2	**913 39**
QUANTOFIX® Formaldehyde*	10–200 mg/L HCHO	**913 28**
QUANTOFIX® Glucose	50–2000 mg/L glucose	**913 48**
QUANTOFIX® Nitrate 100	3–100 mg/L NO_3^-	**913 51**
QUANTOFIX® Nitrate/Nitrite	10–500 mg/L NO_3^- / 0.5–80 mg/L NO_2^-	**913 13**
QUANTOFIX® Nitrite	0.5–80 mg/L NO_2^-	**913 11**
QUANTOFIX® Peracetic acid 50	5–50 mg/L peracetic acid	**913 40**
QUANTOFIX® Peracetic acid 500	50–500 mg/L peracetic acid	**913 41**
QUANTOFIX® Peracetic acid 2000	500–2000 mg/L peracetic acid	**913 42**
QUANTOFIX® Peroxide 25	0.5–25 mg/L H_2O_2	**913 19**
QUANTOFIX® Peroxide 100	1–100 mg/L H_2O_2	**913 12**
QUANTOFIX® Peroxide 1000	50–1000 mg/L H_2O_2	**913 33**
QUANTOFIX® Phosphate*	3–80 mg/L PO_4^{3-}	**913 20**
QUANTOFIX® Sulfite	10–500 mg/L SO_3^{2-}	**913 06**
pH-Fix 0–14	pH 1.0–13.0	**921 10**
pH-Fix 0.0–6.0	pH 0.5–6.0	**921 15**
pH-Fix 2.0–9.0	pH 2.0–9.0	**921 18**
pH-Fix 3.6–6.1	pH 3.6–6.1	**921 30**
pH-Fix 4.5–10.0	pH 4.5–10.0	**921 20**
pH-Fix 6.0–10.0	pH 6.0–10.0	**921 22**
pH-Fix 6.0–7.7	pH 6.0–7.7	**921 50**
pH-Fix 7.0–14.0	pH 7.0–13.5	**921 25**
Together with the QUANTOFIX® Relax, test strips may not be used for any medical application.		
* This product contains harmful substances which must be specially labeled as hazardous. For detailed information please see MSDS.		

Additional tests will be added to the instrument successively based on customer demand. If you are interested in a specific test for the QUANTOFIX® Relax, please contact your local distributor or MACHEREY-NAGEL directly.

Test strips for semi-quantitative determinations

Description of individual parameters and tests

Special test strips and test papers

The tests in this special selection are designed for special analytical questions and provide solutions for specific requirements. Most strips feature high quality color scales for semi-quantitative determinations, while some are just quantitative in nature.

Similar to all our other test strips and papers, the tests mentioned below are very easy to use, especially user friendly and they provide results within seconds.

Table of applications

Determination of	Test paper / test strips	Gradation	REF
Ammonium / Ammonia	Ammonia Test	0 · 0.5 · 1 · 3 · 6 mg/L NH_4^+	**907 14**
Chlorine	Chlorine Test	10 · 50 · 100 · 200 mg/L Cl_2	**907 09**
Fluoride ions	Fluoride Test	0 · 2 · 5 · 10 · 20 · 50 · 100 mg/L F^-	**907 34**
Halide ions	Saltesmo	0 · 0.25 · 0.5 · 1 · 2 · 3 · 4 · 5 g/L NaCl	**906 08**
Humidity in air (relative)	Moisture indicator*	20 · 30 · 40 · 50 · 60 · 70 · 80 %	**908 01**
	Moisture indicator*	8 %	**908 901**
	Moisture indicator without cobalt chloride	8 %	**908 903**
Ozone content in air	Ozone Test	< 90 · 90–150 · 150–210 · > 210 µg/m³ O_3	**907 36**
QUATS	INDIQUAT	on request	**909 000 – 909 002**
Silver	Ag-Fix	0 · 0.5 · 1 · 2 · 3 · 5 · 7 · 10 g/L Ag^+ pH 4 · 5 · 6 · 7 · 8	**907 41**
Swimming pool parameters	Cyanuric Acid Test	see page 38	**907 10**
	Swimming Pool Test 3 in 1	see page 38	**907 52**
	Swimming Pool Test 5 in 1	see page 38	**907 59**
Water hardness	AQUADUR®	see page 35	

* This product contains harmful substances which must be specially labeled as hazardous. For detailed information please see MSDS.

Ammonia Test — REF 907 14

This test strip is for the fast and reliable determination of ammonium, respectively ammonia, in solutions. The easy Dip & Read procedure provides safe results within 40 seconds.

Ammonium / ammonia is harmful to fish and other aquatic life in aquariums. This test shows the amount of ammonium quickly and easily. Thus, the aquarium can be kept in good condition and fish stay healthy.

Type:	test strips
Range:	0 · 0.5 · 1 · 3 · 6 mg/L NH_4^+
Sufficient for:	25 tests
Shelf life:	at least 2.5 years after production
Color change:	bright yellow → blue

Ag-Fix — REF 907 41

This test strip is for the fast and reliable determination of silver in fixing baths. The easy Dip & Read procedure provides a reliable result within 30 seconds.

Fixing is the final step in the development of photos and films. Excess silver halides are washed from the photographic layer. To ensure proper operation of the bath, the silver content as well as the pH have to be checked regularly.

Type:	test strips
Range:	0 · 0.5 · 1 · 2 · 3 · 5 · 7 · 10 g/L Ag^+ pH: 4 · 5 · 6 · 7 · 8
Sufficient for:	100 tests
Shelf life:	at least 2.5 years after production
Color change:	yellow → brown (silver) yellow → blue (pH)

Test strips for semi-quantitative determinations

Description of individual parameters and tests

AQUADUR®

AQUADUR® are test strips for the determination of water hardness. Clear color changes from green to red ensure an accurate readout. Individually sealed AQUADUR® test strips can perfectly be combined with promotion activities to inform customers about the necessity of water softeners. Instructions for use are printed on the seal. Due to the clear design with green / red indication, the result can be read without color chart.

The hardness of water depends on its content of calcium and magnesium salts. The total sum of these salts determines the hardness of water. In the USA, it is expressed in terms of ppm (mg/L) $CaCO_3$.

Water is often simply classified as “soft water“, or “hard water“ etc. The following values generally apply to these terms:

below 50 ppm $CaCO_3$ – very soft water

50–120 ppm $CaCO_3$ – soft water

120–240 ppm $CaCO_3$ – medium hard water

240–360 ppm $CaCO_3$ – hard water

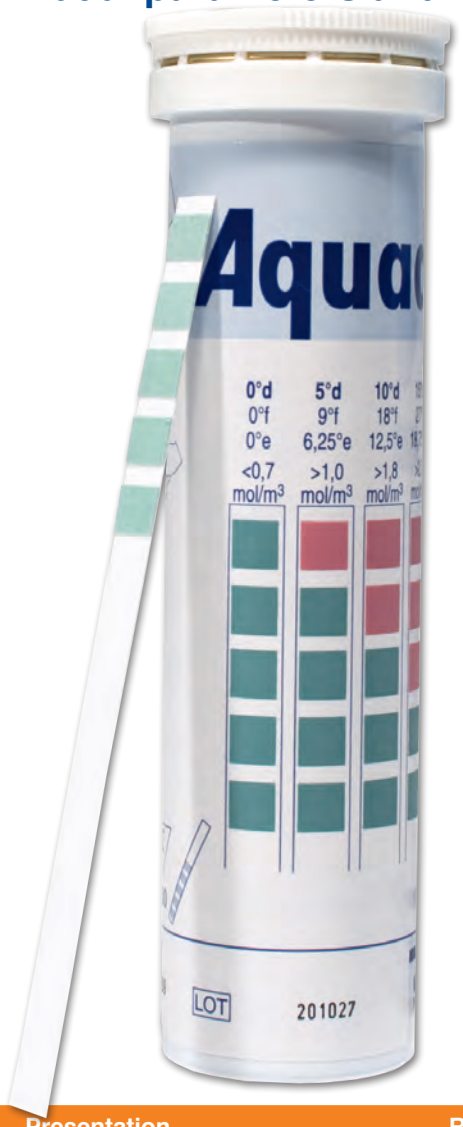
above 360 ppm $CaCO_3$ – very hard water

AQUADUR® Sensitive REF 912 10

This test allows the rapid and reliable detection of very low water hardness. The easy Dip & Read procedure provides a reliable result within 20 seconds.

In dialysis centres AQUADUR® Sensitive is used to check feed water. Low levels of water hardness are necessary to ensure optimal function of further water purification such as reversed osmosis.

This test is CE-marked according to the directive for medical products 93/42/EWG for use in dialysis.



Ordering information

Gradation	Color change	Presentation	REF
< 54 · > 90 · > 180 · > 270 · > 360 · > 450 ppm $CaCO_3$	green → red	Box of 100 test strips 6 x 95 mm	**912 01**
< 54 · > 72 · > 126 · > 252 · > 378 ppm $CaCO_3$	green → red	Box of 100 test strips 6 x 95 mm	**912 20**
< 54 · > 72 · > 151.2 · > 252 ppm $CaCO_3$	green → red	Box of 100 test strips 6 x 95 mm	**912 39**
< 54 · > 90 · > 180 · > 270 · > 360 · > 450 ppm $CaCO_3$	green → red	1000 test strips 5 x 75 mm, individually sealed (22 x 95 mm) with scale	**912 23**
< 54 · > 72 · > 126 · > 252 · > 378 ppm $CaCO_3$	green → red	1000 test strips 5 x 75 mm, individually sealed (22 x 95 mm) with scale	**912 24**
< 54 · > 72 · > 151.2 · > 252 · > 378 ppm $CaCO_3$	green → red	1000 test strips 5 x 75 mm, individually sealed (22 x 95 mm) with scale	**912 40**
< 54 · > 90 · > 180 · > 270 · > 360 · > 450 ppm $CaCO_3$	green → red	5000 test strips, without scale	**912 21**
< 54 · > 72 · > 126 · > 252 · > 378 ppm $CaCO_3$	green → red	5000 test strips, without scale	**912 22**
< 54 · > 90 · > 180 · > 270 · > 360 · > 450 ppm $CaCO_3$	green → red	Set of 3 individually sealed test strips, pack of 50 sets	**912 902**
AQUADUR® Sensitive			
0 · 5.4 · 10.8 · 19.8 ppm $CaCO_3$ CE	light beige → blue	Box of 100 test strips 6 x 95 mm	**912 10**
CE: CE-marked according to the directive for medical products 93/42/EWG			

Test strips for semi-quantitative determinations

Description of individual parameters and tests

Chlorine Test — REF 907 09

This test paper allows the quick and easy determination of chlorine in solutions. The easy Dip & Read procedure provides a reliable result within a few seconds.

Chlorine is widely used for disinfection. Dosed correctly, harmful microorganisms are safely destroyed, many impurities removed and the growth of algae is prevented. Chlorine Test is used to monitor the concentration of disinfection baths.

Type:	test paper
Range:	10 · 50 · 100 · 200 mg/L Cl_2
Presentation:	reel of 5 m length
Shelf life:	at least 2 years after production
Color change:	white → dark blue

Fluoride Test — REF 907 34

This test paper is for the quick and easy determination of fluoride in solutions. It includes all necessary reagents so that the measurement can be started immediately. A reliable result is obtained within 2 minutes.

The test can also be used for the detection of dangerous hydrofluoric acid that is used in the production of computer chips.

Type:	test paper with reagents
Range:	0 · 2 · 5 · 10 · 20 · 50 · 100 mg/L F^-
Sufficient for:	30 tests
Shelf life:	at least 2 years after production
Color change:	red → white

INDIQUAT — REF 909 000–909 002

This test paper allows the quick and easy determination of QUAT-based disinfectants in solutions. The easy Dip & Read procedure provides a reliable result within 10 seconds.

Quaternary ammonium compounds (QUAT) identifies a group of chemicals that are used for the disinfection of medical devices and surfaces. They are usually supplied as concentrates that have to be diluted prior to use. The concentration of these dilutions can easily be controlled with INDIQUAT.

INDIQUAT is only manufactured in customer presentation and on request. Alternatively, QUANTOFIX® QUAT (see page 30) can be used for the rapid and reliable detection of quaternary ammonium compounds.

Type:	test paper
Range:	on request
Presentation:	reel of 5 m length
Shelf life:	at least 2 years after production

Moisture indicator — REF 908 01

This test is used for the quick and easy determination of the relative atmospheric humidity. The paper is simply exposed to the atmosphere in question. When the color of the pad does not change anymore, the humidity can be read off.

Moisture sensitive goods e.g. electronics and optical systems have to be stored at low atmospheric humidity. They are usually packed in sealed plastic bags together with a desiccant.

Moisture indicators are used to control if the desiccants is active and if moisture is effectively kept away from the goods.

Type:	self-adhesive label
Range:	20 · 30 · 40 · 50 · 60 · 70 · 80 % r.H.
Presentation:	box of 12 adhesive labels
Color change:	pink ↔ blue

Moisture indicator — REF 908 901

Similar to REF 908 01 but only for 8 % r.H.

Type:	test paper
Sensitivity:	8 % r.H.
Presentation:	pack of 1000 indicators, 60 x 35 mm
Color change:	pink ↔ blue

Test strips for semi-quantitative determinations

Description of individual parameters and tests

Non-toxic moisture indicator without cobalt chloride
REF 908 903

This test is similar to REF 908 901 with one important difference:

The patented moisture indicator is free from carcinogenic and toxic material. The clear color change from red to yellow ensures precise readings.

Established humidity indicators are based on cobalt chloride ($CoCl_2$), which has been found to be carcinogenic and toxic. Contact to these types of indicators represents a health and safety risk to staff involved in handling and packing.

The patented non-toxic moisture indicator eliminates these risks and increase safety.

Type:	test paper
Sensitivity:	8 % r.H.
Presentation:	pack of 1000 indicators, 60 x 35 mm
Color change:	yellow ↔ red

Ozone Test
REF 907 36

This test is used for the quick and easy determination of ozone in air. The test strip is placed in the open air at a wind-shielded location. A reliable result is obtained within 10 minutes.

Ozone is a toxic gas that is formed on sunny days from oxygen and nitrogen oxides. It causes headache, cough and other irritations of the respiratory tract. It is often recommended, that sensitive persons stop physical activities (i.e. jogging) at concentrations >180 µg/m^3.

The ozone concentration varies locally. Using Ozone Test the concentration can be measured directly at the point of interest.

Type:	test strips
Range:	< 90 · 90–150 · 150–210 · > 210 µg/m^3 ozone
Sufficient for:	12 tests
Shelf life:	at least 1.5 years after production
Color change:	white → brown

Saltesmo
REF 906 08

This test paper allows the quick and easy determination of chloride, bromide and iodide in solutions. The test disc is simply punched with an enclosed needle and put into the sample. A reliable result is obtained within 2 minutes.
Sodium chloride is common table salt (NaCl). Saltesmo is used for the detection of salt water in ships and for salt determination in foodstuffs.

Type:	test discs
Range:	0 · 0.25 · 0.5 · 1 · 2 · 3 · 4 · 5 g/L NaCl
Sufficient for:	30 tests
Shelf life:	at least 1.5 years after production
Color change:	red → yellow

Test strips for semi-quantitative determinations

Description of individual parameters and tests

Swimming Pool Test 5 in 1 — REF 907 59

This test allows the quick and easy determination of the water quality in swimming pools. The test strip is dipped into the pool and moved back and forth 5 times. A reliable result is obtained within 30 seconds.

The test provides valuable results about the water hardness, the total alkalinity, free and total chlorine and pH. Monitoring of the water quality allows adjusting the dosage of water conditioners in good time. The pool remains nice and clean.

Type:	test strips
Range:	0 · 100 · 250 · 500 · 1000 mg/L $CaCO_3$ (total hardness) 0 · 0.5 · 1 · 3 · 5 · 10 mg/L Cl_2 (free chlorine) 0 · 1 · 3 · 5 · 10 mg/L Cl_2 (total chlorine) 0 · 80 · 120 · 180 · 240 mg/L $CaCO_3$ (alkalinity) pH 6.4 · 6.8 · 7.2 · 7.6 · 8.4
Sufficient for:	50 tests
Shelf life:	at least 2 years after production
Color change:	blue → red (total hardness) yellow → violet (total chlorine) yellow → violet (free chlorine) light green → dark green (alkalinity) yellow → red (pH value)

Swimming Pool Test 3 in 1 — REF 907 52

Similar to Swimming Pool test 5 in 1 but only with test pads for alkalinity, free chlorine and pH.

Cyanuric Acid Test — REF 907 10

This test strip is for the fast and reliable determination of cyanuric acid in swimming pools. The test strip is simply dipped into the water and moved back and forth five times. After 30 seconds safe results can be read by simply comparing the strip with the color chart.

Strong sun shine (UV radiation) on swimming pool water decomposes chlorine very quickly. Cyanuric acid stabilizes chlorine in swimming pool water, inhibits decomposition and thus ensures the water's safe and proper disinfection.

Type:	test strips
Range:	0 · 50 · 100 · 150 · 300 mg/L cyanuric acid
Sufficient for:	25 tests
Shelf life:	at least 2.5 years after production
Color change:	orange → red