

MACHEREY-NAGEL Test Strips - pH-Fix Papers

Recommended for pH measurement in weakly buffered or strongly alkaline solutions.

Macherey Nagel strips are easy to use and easy to read. In the field Technicians can test many samples in only a few minutes and make immediate evaluations on site. No measuring, setting up or chemical handling are necessary.

Technicians can easily conduct pre-test screening to detect the presence of materials that might interfere with lab testing.

As water quality testing becomes more important these test strips answer the need for fast reliable test results.

Reagecon offer 3 types of test strips pH-Fix, Pehanon® and Quantofix.

pH-fix indicator sticks are suitable for the rapid measurement of the pH of a water sample.



Advantages

Measurement of pH values is possible even in unbuffered solutions since the sticks can be left in the solution until the final reaction colour is obtained.

Test samples are not contaminated by the indicator dyes thus solutions can be used for further investigations.

The individual colour fields cannot run into each other which allows a more precise comparison of the colour scale.

Specially developed indicator dyes guarantee a sharp differentiation between the individual pH values and a clear and easy comparison with the colour scale.

Length and stability of the plastic strips protect fingers from contact with the test solution.



Cat No.	pH-Fix Range	Gradation
921 10	pH 0 - 14	0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14
921 15	pH 0.0 - 6.0	0 - 0.5 - 1.0 - 1.5 - 2.0 - 2.5 - 3.5 - 4.0 - 4.5 - 5.0 - 5.5 - 6.0
921 18	pH 2.0 - 9.0	2.0 - 2.5 - 3.0 - 3.5 - 4.0 - 4.5 - 5.0 - 5.5 - 6.0 - 6.5 - 7.0 - 7.5 - 8.0 - 8.5 - 9.0
921 20	pH 4.5 - 10.0	4.5 - 5.0 - 5.5 - 6.0 - 6.5 - 7.0 - 7.5 - 8.0 - 8.5 - 9.0 - 9.5 - 10.0
921 22	pH 6.0 - 10.0	6.0 - 6.4 - 6.7 - 7.0 - 7.3 - 7.6 - 7.9 - 8.2 - 8.4 - 8.6 - 8.8 - 9.1 - 9.5 - 10.0
921 25	pH 7.0 - 14.0	7.0 - 7.5 - 8.0 - 8.5 - 9.0 - 9.5 - 10.0 - 10.5 - 11.0 - 11.5 - 12.0 - 12.5 - 13.0 - 13.5 - 14.0
921 80	pH 0.3 - 2.3	0.3 - 0.7 - 1.0 - 1.3 - 1.6 - 1.9 - 2.3
921 90	pH 1.7 - 3.8	1.7 - 2.0 - 2.3 - 2.6 - 2.9 - 3.2 - 3.5 - 3.8
921 30	pH 3.6 - 6.1	3.6 - 4.1 - 4.4 - 4.7 - 5.0 - 5.3 - 5.6 - 6.1
921 40	pH 5.1 - 7.2	5.1 - 5.4 - 5.7 - 6.0 - 6.3 - 6.6 - 6.9 - 7.2
921 50	pH 6.0 - 7.7	6.0 - 6.4 - 6.7 - 7.0 - 7.3 - 7.7
921 60	pH 7.5 - 9.5	7.5 - 7.9 - 8.2 - 8.4 - 8.6 - 8.8 - 9.1 - 9.5
921 70	pH 7.9 - 9.8	7.9 - 8.3 - 8.6 - 8.9 - 9.1 - 9.4 - 9.8

Presentation: Box with 100 sticks 6 x 85 mm

MACHERY-NAGEL pH Indicator Papers -Pehanon®

PEHANON® Indicator Papers For pH Measurement in Coloured Solutions

PEHANON® is a series of pH indicator papers where the indicator and colour scale are combined on a single strip. They permit a fast, convenient and accurate determination of the pH value since they eliminate the necessity to compare the colour field against a separate scale. pH values are imprinted on the strips.



This presentation also permits the pH measurement of coloured solutions and suspensions, since the colour of the test solution acts on the colour scale in the same manner as on the indicator field, resulting in a comparison of mixed colours. The individual colour zones are separated by hydrophobic barriers. The indicator zone (unprinted field of about 6mm width) is in the middle of the strip, the comparison fields (4mm wide) are arranged above and below.

The strip is submerged in the solution for about three seconds so that all colour zones are wetted. The indicator zone (unprinted centre field) changes colour according to the pH value of the solution and is then compared against the colour fields on the strip.

The pH value is read from the closest matching field. An invisible hydrophobic silicone barrier just above the top colour field prevents capillary action of the test solution beyond that point and allows safe and clean handling with corrosive, toxic or otherwise noxious liquids.

The PEHANON® series covers the entire pH range from 0 to 14 with one universal paper and thirteen narrow ranges which overlap to permit utmost selectivity for the range suited to each particular need. The pH gradations within each strip have been established to offer maximum colour differentiation from one comparison field to the next depending on the individual indicator.

PEHANON® papers guarantee highest accuracy even when testing coloured solutions. Again - as with universal and special indicator papers - best results are obtained for buffered solutions and suspensions.

Cat No.	Pehanon® Range	Gradation
904 01	pH 1 - 12	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12
904 11	pH 0 - 1.8	0 - 0.3 - 0.6 - 0.8 - 1.0 - 1.2 - 1.5 - 1.8
904 12	pH 1.0 - 2.8	1.0 - 1.3 - 1.6 - 1.8 - 2.0 - 2.2 - 2.5 - 2.8
904 13	pH 1.8 - 3.8	1.8 - 2.1 - 2.4 - 2.7 - 3.0 - 3.2 - 3.5 - 3.8
904 14	pH 2.8 - 4.6	2.8 - 3.1 - 3.4 - 3.6 - 3.8 - 4.0 - 4.3 - 4.6
904 15	pH 3.8 - 5.5	3.8 - 4.0 - 4.2 - 4.4 - 4.6 - 4.9 - 5.2 - 5.5
904 24	pH 4.0 - 9.0	4.0 - 4.5 - 5.0 - 5.5 - 6.0 - 6.5 - 7.0 - 7.5 - 8.0 - 8.5 - 9.0
904 16	pH 5.2 - 6.8	5.2 - 5.5 - 5.7 - 5.9 - 6.1 - 6.3 - 6.5 - 6.8
904 17	pH 6.0 - 8.1	6.0 - 6.3 - 6.6 - 6.9 - 7.2 - 7.5 - 7.8 - 8.1
904 19	pH 7.2 - 8.8	7.2 - 7.4 - 7.6 - 7.8 - 8.0 - 8.2 - 8.5 - 8.8
904 20	pH 8.0 - 9.7	8.0 - 8.2 - 8.4 - 8.6 - 8.8 - 9.1 - 9.4 - 9.7
904 21	pH 9.5 - 12.0	9.5 - 10.0 - 10.5 - 11.0 - 11.5 - 12.0
904 22	pH 10.5 - 13.0	10.5 - 11.0 - 11.5 - 12.0 - 12.5 - 13.0
904 23	pH 12.0 - 14.0	12.0 - 12.5 - 13.0 - 13.5 - 14.0

Presentation: Plastic Box Containing 200 Strips 11 x 100 mm

Cat No.	Pehanon® Range	Gradation
905 01 (Reel)	pH 1 - 11	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11
905 02 (Refill)	pH 1 - 11	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11

Presentation: Reel: Plastic dispenser with colour scale and 1 reel, packed in individual cardboard box.
Reel Size: DUOTEST and TRITEST: 5 m long and 10 mm wide, TRITEST L: 6 m long and 14 mm wide.
Refill Pack: Box with 3 reels, each reel separately sealed in polyethylene.

COD Measurement

Chemical Oxygen Demand (COD) is widely used as a measure of the pollutants in discharged waste waters. COD is also used for assessing the efficiency of water treatment plants and the load placed on these plants by incoming waste streams. COD analysis gives a rapid indication of the level of both organic and inorganic oxygen demanding pollutants. COD is defined as the quantity of specified oxidant (dichromate) that reacts with the sample under controlled conditions of temperature and time.

Reagecon offer all of the components required for rapid, confident analysis of COD. The measurement system complies with ISO 15705 & Standard Method 5220 D for chemical composition and for the requirement that digestion must take place at 150°C for 2 hours. Reagecon's COD set comprises of:

- The Aqualytic PC Compact COD Vario Photometer.
- 8 place & 25 place Thermoreactors (AL32 & AL38).
- 16mm diameter COD Reagent vials, covering 3 different measurement ranges.- see page
- A comprehensive range of COD standards, PC Compact and COD Vario. - see page

With 3 measuring ranges, accurate analysis of all samples is possible. The PC Compact COD Vario uses two LED light sources – these combine wavelength accuracy with outstanding durability.



Cat No.	Description
4209240	PC Compact COD Setup Complete with photometer, reactor AL 32, 2 sets of each, 25 vials 0-150mg/l and 0-1500mg/l and vial stand.

TECHNICAL DATA

Meas. Cycle	Approx. 3 seconds
Display	LCD
Optics	Temperature-compensated LEDs (1 = 605nm, • 2 = 430nm), and photo-sensor amplifier in waterproof sample chamber
Power Supply	9 V powerpack battery providing 40 hours operation
Auto - OFF	Automatic switch-off approx. 5 minutes after last keypress
Ranges	0 – 150 mg/l O ₂ ±3.5% 0 – 1500 mg/l O ₂ ±3.5% 0 –15000 mg/l O ₂ ±3.5%
Dimensions	190x 110x 55 mm (LxWxH)
Weight	Base unit approx. 0.4 kg
Environmental Conditions	Temperature: 0 – 40°C rel. humidity: 30 – 90% (non-condensing)
CE-Conformity	EN 50081-1 VDE 0839 part 81-1: 1993-03 EN 50082-2 VDE 0839 part 82-2: 1996-02

MACHERY-NAGEL Filter Papers

Hardened Filter Papers for Quantitative Analysis

- Manufactured from refined pulp.
- Low ash content of < 0.01%.
- Suited for quantitative routine procedures and analytical gravimetric applications.
- High mechanical strength in wet conditions, they are particularly suited for applications where the residue is removed from the filter.

MN 640d		MN 1640m		MN 1640w		MN 640md		MN 640w	
Cat No. (Circle Filters)	Diameter (mm)	Cat No. (Circle Filters)	Diameter (mm)	Cat No. (Circle Filters)	Diameter (mm)	Cat No. (Circle Filters)	Diameter (mm)	Cat No. (Circle Filters)	Diameter (mm)
205005	55	223005	55	222005	55	204005	55	202005	55
205007	70	223007	70	222007	70	204007	70	202007	70
205009	90	223009	90	222009	90	204009	90	202009	90
205011	110	223011	110	222011	110	204011	110	202011	110
205012	125	223012	125	222012	125	204012	125	202012	125
205015	150	223015	150	222015	150	204015	150	202015	150
205018	185	223018	185	222018	185	204018	185	202018	185
205024	240	223024	240	222024	240	204024	240	202024	240
206032	320	223032	320	222032	320	204032	320	202032	320

Filter Cross Reference Table Quantitative Papers

M-N	Whatman	S&S
640md	40	589/2
640w	41	589/1
640d	42	589/3
1640m	540	1506
1640w	541	1505

(All are supplied in a pack of 100)



Glass Fibre Papers / Quartz Fibre Papers

- Allow fast filtration with simultaneous very high particle retention.
- Manufactured from borosilicate glass fibres.
- Chemically resistant towards most organic and inorganic solvents (except HF).

Filter Cross Reference Table Glass Fibre Papers

M-N	Whatman	S&S
GF-1	GF/A	GF50
GF-3	GF/C	GF52

(All are supplied in a pack of 100)

MN GF-1		MN GF-3	
Cat No. (Circle Filters)	Diameter (mm)	Cat No. (Circle Filters)	Diameter (mm)
4110025	25	4130025	25
4110037	37	4130037	37
4110045	45	4130045	45
411005	55	413005	55
411007	70	413007	70
411009	90	413009	90
411011	110	413011	110
411012	125	413012	125
411015	150	413015	150
411018	185	413018	185
411024	240	413024	240
411027	270	413027	270

QUANTOFIX® Test Strips and Test Papers for Semi-Quantitative Determinations

Quantofix® Test sticks meet the most important requirements for a modern quick-test:

- Rapid** - Dip and read.
- Convenient** - The analysis can be carried out without any further equipment, only a single test stick of Quantofix® is needed.
- Specific** - Quantofix® test sticks are highly specific - possible interferences are eliminated by precipitation or masking.
- Stable** - Shelf life 2.5 years (below +30°C).



Cat No.	Parameter	Gradation	Colour Change
913 07	Quantofix® Aluminium(1)	0 - 5 - 20 - 50 - 200 - 500 mg/l Al ³⁺	pink to red
913 15	Quantofix® Ammonium(1)	0 - 10 - 25 - 50 - 100 - 200 - 400 mg/l NH ₄ ⁺	yellow to orange
913 34	Quantofix® Arsenic 10(1)	0 - 0.01 - 0.025 - 0.05 - 0.1 - 0.5 mg/l As ^{3+/5+}	white to yellowish brown
913 32	Quantofix® Arsenic 50(1)	0 - 0.05 - 0.1 - 0.5 - 1.0 - 1.7 - 3.0 mg/l As ^{3+/5+}	white to yellowish brown
913 14	Quantofix® Ascorbic acid (Vit C)	0 - 50 - 100 - 200 - 300 - 500 - 1000 - 2000 mg/l	yellow to green-blue
913 24 (2)	Quantofix® Calcium(1)	0 - 10 - 25 - 50 - 100 mg/l Ca ²⁺	yellow to red
913 23	Quantofix® Carbonate hardness	0 - 3 - 6 - 10 - 15 - 20 °d	light green to blue
913 21	Quantofix® Chloride	0 - 500 - 1000 - 1500 - 2000 - ≥ 3000 mg/l Cl ⁻	brown to yellow
913 17	Quantofix® Chlorine(1)	0 - 1 - 3 - 10 - 30 - 100 mg/l Cl ₂	white to red violet
913 01	Quantofix® Chromate	0 - 3 - 10 - 30 - 100 mg/l CrO ₄ ²⁻	white to violet
913 03	Quantofix® Cobalt	0 - 10 - 25 - 50 -100 -250 - 500 - 1000 mg/l CO ₂ ⁺	white to green-blue
913 04	Quantofix® Copper	0 - 10 - 30 - 100 - 300 mg/l Cu ^{+/2+}	white to red-violet
913 18	Quantofix® Cyanide(1)	0 - 1 - 3 - 10 - 30 mg/l CN ⁻	white to red-violet
913 35	Quantofix® EDTA	0 - 100 - 200 - 300 - 400 mg/l EDTA	red to yellow
913 28	Quantofix® Formaldehyde(1)	0 - 10 - 20 - 40 - 60 - 100 - 200 mg/l HCHO	beige to blue-violet
913 02	Quantofix® Iron 1000(1)	0 - 5 - 20 - 50 - 100 - 250 - 500 - 1000 mg/l Fe ^{2+/3+}	white to dark red
913 08	Quantofix® Iron 100(1)	0 - 2 - 5 - 10 - 25 - 50 - 100 mg/l Fe ^{2+/3+}	white to blue velvet
913 25	Quantofix® Molybdenum(1)	0 - 5 - 20 - 50 - 100 -250 mg/l Mo ⁶⁺	white to green
913 05	Quantofix® Nickel	0 - 10 - 25 - 50 - 100 - 250 - 500 - 1000 mg/l Ni ²⁺	white to light red
913 13	Quantofix® Nitrate/nitrite	0 - 10 - 25 - 50 - 100 - 250 - 500 mg/l NO ₃ ⁻	white to red-violet
913 11	Quantofix® Nitrite	0 - 1 - 5 - 10 - 20 - 40 - 80 mg/l NO ₂ ⁻	white to red-violet
913 22	Quantofix® Nitrite 3000	0 - 0.1 - 0.3 - 0.6 - 1 - 2 - 3 g/l NO ₂ ⁻	yellow to red
913 33	Quantofix® Peroxide 1000	0 - 50 - 150 - 300 - 500 - 800 - 1000 mg/l H ₂ O ₂	white to brown
913 12	Quantofix® Peroxide 100	0 - 1 - 3 - 10 - 30 - 100 mg/l H ₂ O ₂	white to blue
913 19	Quantofix® Peroxide 25	0 - 0,5 - 2 - 5 - 10 - 25 mg/l H ₂ O ₂	white to blue
913 20	Quantofix® Phosphate(1)	0 - 3 - 10 - 25 - 50 - 100 mg/l PO ₄ ³⁻	white to blue-green
913 16	Quantofix® Potassium(1)	0 - 200 - 400 - 700 - 1000 - 1500 mg/l K ⁺	yellow to orange
913 29	Quantofix® Sulphate	<200 - >400 - >800 - >1200 - >1600 mg/l SO ₄ ²⁻	red to yellow
913 06	Quantofix® Sulphite	0 - 10 - 25 - 50 - 100 - 250 - 500 - 1000 mg/l SO ₃ ²⁻	white to salmon
913 09	Quantofix® Tin	0 - 10 - 25 - 50 - 100 - 250 - 500 mg/l Sn ²⁺	white to dark blue
913 10	Quantofix® Zinc(1)	0 - 2 - 5 - 10 - 25 - 50 -100 mg/l Zn ²⁺	orange to red
913 26	Quantofix® Multistick	0 - 5 - 10 - 15 - 20 - 25 °d total hardness	green to red
913 27(3)	For Aquarium Owners	0 - 3 - 6 - 10 - 15 - 20 °d carbonate hardness pH 6.4 - 6.8 - 7.2 - 7.6 - 8.0 - 8.4	light green to blue yellow to red
91201	Aquadur® For Hardness Detection	0 - 5 - 10 - 15 - 20 - 25 °d	blue to red
91220	Aquadur® For Hardness Detection	0 - 5 - 10 - 15 - 20 - 21 °d	blue to red

Presentation: Container with 100 test sticks 6 x 95 mm (1) These tests are supplied complete with all reagents required for the determination (2) Presentation: container with 60 test sticks (3) Presentation: Container with 25 test sticks.