

A close-up photograph of a laboratory experiment. In the foreground, a glass beaker is filled with a vibrant blue liquid. A white test strip with several colored bands (orange, white, yellow, white, yellow, green, blue, dark red, light blue) is partially submerged in the liquid. The background is slightly blurred, showing a red container and other glassware. The overall scene is brightly lit, emphasizing the colors of the liquid and the test strip.

Johnson[®]
TEST PAPERS

Product Catalogue 2015
Rapid Tests
Filter Papers

Johnson Test Papers is a well known brand in the rapid test and filter paper community

The use of rapid tests play a very important role when analysing solutions, be it for education, research and development, healthcare or other specialist industries. Johnson Test Papers has been manufacturing easy to use rapid tests since 1938 providing fast and accurate results you can trust. Our broad range of products covers everything from simple pH testing, water analysis, production processes and measurements of special food parameters. Keep up to date with our ever growing range of products by visiting our website at www.johnsontestpapers.com.

Custom Order and Product Development

Johnson Test Papers is recognised worldwide as one of the leading OEM manufacturers of rapid tests and filter papers. Our technical staff can work with your research and development departments or help to determine the best solutions for your specific product. Products in this catalogue however, most of our products can be supplied in special sizes or presentation including sheets, rolls or die-cut. To obtain more information please contact our sales team at sales@jtp.uk.com

Samples

Product samples are available to help determine the products most suited to your application. Please contact our customer services team at sales@jtp.uk.com for more information.

Distribution

Johnson Test Papers products are available from a worldwide distributor network. Our representatives can provide you with a comprehensive product range and technical expertise to help provide you with the best assistance you may require.



Technical Information

This catalogue provides current and detailed technical information. However for those unusual requests we have a team of competent specialists who can answer your questions immediately or forward them to our specialists in product development.

Satisfaction Guaranteed

If you are dissatisfied with any of our products, we will be happy to work with you to attempt in solving your problem. If there is a quality issue within 3 months of purchase and we fail to provide a solution, we will offer a replacement or provide full credit.

Quality

Johnson Test Papers continued commitment is supported through registered adherence to ISO 9001 standards.



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Introduction to pH

pH is the measure for the concentration of the hydrogen ion. This is chemically defined as the negative decimal logarithm of the hydrogen ion activity in a solution. Pure (neutral) water has a hydrogen ion activity of 10^{-7} at 25°C , which corresponds to a pH of 7. The pH range extends from pH 0 to pH 14. The more H^{+} ions the solution contains (acids) the lower the pH (<7), while the fewer the H^{+} ions and therefore more OH^{-} ions (bases) the solution contains, the more alkaline it is and the higher the pH (>7). pH follows a logarithmic curve where each stage of the pH scale follows a ten fold multiplication.

The pH test

The importance of pH exerts its effect in various chemical processes especially within biochemistry and chemistry. Many analytical methods and tests are often influenced by the pH which is where it is of more practical importance than just determining the concentration of other ions. pH can be measured using pH indicator papers and strips.

pH indicator papers and strips can be used directly when required without the need of any accessories or any pretreatment. Results are immediate and can be in full pH intervals or down to 0.2 pH intervals. The results are highly accurate which allows the user to take the necessary measures no matter which field of the industrial or environmental sector these pH test are being used in.

The benefits of using pH indicator papers and strips must be assessed on the measurement method, its application and the requirements. pH can rapidly change due to chemical, physical or biological processes therefore making it difficult to stabilise.

Our Johnson Test Papers products and their colour charts have been extensively checked and calibrated using certified buffer solutions, ensuring that high quality standards are achieved.

testing turbid or colour solutions

When the solutions being tested are turbid, coloured or contain a precipitate, then it is advisable to use our pH papers. Take a drop of the sample solution and allow it to fall on the pH paper. Then compare the colour produced on the reverse side of the paper with the colour chart, making sure to read the colour produced from the center of the drop and not the edges.



Factors influencing pH

pH indicators can be regarded as weak acids or bases therefore the degree of dissociation can be influenced by co-solvents such as salts, proteins, colloids and organic solvents. Temperature is also a key factor which can influence pH and must be considered when conducting any testing. When carrying out tests using pH indicators, a variety of errors can occur:

the indicator acid-base error

The indicator error can occur as a result of the acid or base nature of the indicator dye and occurs only in solutions that are not or inadequately buffered. If the buffering capacity of the solution is low e.g. tap water, river water, distilled water, strongly diluted salt solutions, the pH value can deviate up to one whole pH unit in extreme cases. That being said, the quantity of indicator in a test strip is usually in the range of micrograms therefore the effect is almost non-existent unlike liquid indicators where the effect may be more pronounced resulting in an erroneous reading.

the alcohol error

The alcohol error occurs in solutions containing an organic solvent, for example alcohol, in addition to water. The addition of an organic solvent to an aqueous system results in a shift in its acid base equilibrium. This shift is often amplified as the alcohol concentration increases, shifting the pH measurement by up to 1 pH unit.

the salt error

The salt error depends on the concentration and the type of salts present in solution as they produce a shift in the equilibrium of the indicator. This can mean that errors can occur in a number of salt solutions. Where the salt concentration is less than 2 mol/L, correction of the result is not normally necessary. The salt error is specific for each indicator depending on its structure and charge. Hence, in the presence of foreign neutral salts, the end point of the indicator acid is moved towards a higher hydrogen ion concentration i.e. towards a lower pH value, while that of the indicator bases is moved towards a lower hydrogen ion concentration i.e. towards a higher pH value.

the alkaloid error

This type of error occurs due to the formation of deposition complexes similar to those found with the protein error.

the protein error

The protein error occurs as a result of any proteins present that bind to the indicator acids due to their amphoteric character. The basic groups of proteins in solution bind to the indicator acid and the acidic groups of proteins in solution bind to the indicator bases. The protein error effect depends on the type of protein, its quantity and the type of indicator itself. The simpler its structure, the lower the interference with the pH measurement. However the protein error can be exploited and used to measure the protein content in solutions.

the temperature error

This type of error is caused by changes to the ionic product of the water due to changes in the temperature. This will reflect upon the pH value obtained during any measurement. The temperature error can be felt especially in hot conditions as our pH papers and strips have been calibrated and tested at 20°C .



pH paper

Our pH indicator papers are one of the most popular products on the market and suitable for many applications. They provide a quick and easy method of indicating the pH of a solution by using a single colour change which can be matched to the colour chart at intervals of 1 pH. The Comparator Papers can be matched to the colour chart with the added advantage of being able to measure in pH intervals of 0.2 - 0.5 pH. Additional colour charts in A6, A5 or A3 sizes are available on request. Please contact our sales department for more information.



Product	Description	Presentation	Product Code
Universal Indicator Paper pH 1 - 11	pH 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11	10 books of 20 strips	004.1
		1 reel (5m x 7mm)	004.5
		3 reel refill pack	004.5R
		100 strips per pack	004.33C
Universal Indicator Paper pH 1 - 14	pH 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14	10 books of 20 strips	046.1
		1 reel (5m x 7mm)	046.5
		3 reel refill pack	046.5R
		100 strips per pack	046.33C
Comparator Paper pH 1.0 - 3.5	pH 1.0 - 1.5 - 2.0 - 2.5 - 3.0 - 3.5	10 books of 20 strips	005.1
		1 reel (5m x 7mm)	005.5
		3 reel refill pack	005.5R
		200 strips per pack	005.33
Comparator Paper pH 3.6 - 5.1	pH 3.6 - 3.9 - 4.2 - 4.8 - 5.1	10 books of 20 strips	006.1
		1 reel (5m x 7mm)	006.5
		3 reel refill pack	006.5R
		200 strips per pack	006.33
Comparator Paper pH 5.2 - 6.7	pH 5.2 - 5.5 - 5.8 - 6.1 - 6.4 - 6.7	10 books of 20 strips	007.1
		1 reel (5m x 7mm)	007.5
		3 reel refill pack	007.5R
		200 strips per pack	007.33
Comparator Paper pH 6.8 - 8.3	pH 6.8 - 7.1 - 7.4 - 7.7 - 8.0 - 8.3	10 books of 20 strips	008.1
		1 reel (5m x 7mm)	008.5
		3 reel refill pack	008.5R
		200 strips per pack	008.33
Comparator Paper pH 8.4 - 10.0	pH 8.4 - 8.7 - 9.0 - 9.3 - 9.6 - 10.0	10 books of 20 strips	009.1
		1 reel (5m x 7mm)	009.5
		3 reel refill pack	009.5R
		200 strips per pack	009.33
Comparator Paper pH 4.0 - 8.0	pH 4.0 - 4.5 - 5.0 - 5.5 - 6.0 - 6.5 - 7.0 - 7.5 - 8.0	10 books of 20 strips	022.1
		1 reel (5m x 7mm)	022.5
		3 reel refill pack	022.5R
		200 strips per pack	022.33
BCG Comparator Paper pH 4.0 - 5.6	pH 4.0 - 4.2 - 4.4 - 4.6 - 4.8 - 5.0 - 5.2 - 5.4 - 5.6	10 books of 20 strips	023.1
		1 reel (5m x 7mm)	023.5
		3 reel refill pack	023.5R
		200 strips per pack	023.33
BTB Comparator Paper pH 6.2 - 7.8	pH 6.2 - 6.4 - 6.6 - 6.8 - 7.0 - 7.2 - 7.4 - 7.6 - 7.8	10 books of 20 strips	044.1
		1 reel (5m x 7mm)	044.5
		3 reel refill pack	044.5R
		200 strips per pack	044.33

pH paper without colour charts

These products are simple and easy to use where no precise pH value is required. They indicate if a solution is above or below the point at which the colour change occurs. They are useful in determining whether a solution is acid or alkaline and can also be used to indicate a colour change over a very narrow range. Litmus Paper sheets are also available in various sizes. Please contact the sales team for more information.

Litmus Papers

Product	Range	Colour change	Presentation	Product Code
Litmus Blue	pH < 7	Blue to Red	10 books per pack, 20 strips per book	001.1
			1 reel (5m x 7mm)	001.5
			3 reel refill pack	001.5R
			100 strips per pack	001.33C
Litmus Red	pH > 7	Red to Blue	10 books per pack, 20 strips per book	003.1
			1 reel (5m x 7mm)	003.5
			3 reel refill pack	003.5R
			100 strips per pack	003.33C
Litmus Neutral	pH 1-14	Purple to Red pH < 7 Purple to Blue pH > 7	10 books per pack, 20 strips per book	002.1
			1 reel (5m x 7mm)	002.5
			3 reel refill pack	002.5R
			100 strips per pack	002.33C



Narrow Range pH Papers

Product	Range	Colour change	Presentation	Product Code
Congo Red	pH 4.4 - 2.6	Red to Blue	10 books per pack, 20 strips per book	010.1
Turmeric	pH 6.8 - 8.6	Yellow to Red	10 books per pack, 20 strips per book	011.1
Clayton Yellow	pH 12.0 - 13.0	Yellow to Red	10 books per pack, 20 strips per book	014.1
Brilliant Yellow	pH 6.6 - 8.4	Yellow to Red	10 books per pack, 20 strips per book	027.1
Phenolphthalein	pH 8.4 - 9.6	White to Red	10 books per pack, 20 strips per book	029.1
Methyl Orange	pH 3.0 - 4.4	Red to Yellow	10 books per pack, 20 strips per book	045.1

pH Strips (non-bleeding)

The indicator pads on these environmentally friendly strips are prepared as a non bleed system therefore the resultant colour change remains far longer and readable until the pad is dry. Strips with the non-bleed system provide precise pH values as the different colours do not mix at the point of testing. Each strip is long enough to protect the user from the test solution as the test pads are at the extreme end of the strip. For accurate pH readings, these strips use up to 4 different indicator pads and the colours on the enclosed colour chart match the colour and position of each pad on the strip. This allows these strips to provide a rapid method of measuring the pH of a solution while producing high quality results each time.

Universal Indicator Strips are also available as single pad strips where it is not essential to have the high level of accuracy achieved using the 4 or 3 indicator pad strips. These strips still provide the benefits of using pH indicator strips along with immediate colour changes and a non bleed system to identify the resultant pH.

Product	Description	Presentation	Product Code
Universal Indicator Strips pH 0 - 14, 4 pad	pH 0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	100 strips/pk	140.4
Universal Indicator Strips pH 0 -14, 3 pad	pH 0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14	100 strips/pk	101.3C
Universal Indicator Strips pH 0-14, 1 pad	pH 0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14	100 strips/pk	046.3
Universal Indicator Strips pH 0-11, 1 pad	pH 0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11	100 strips/pk	004.3
pH Indicator Strips pH 11.5 - 14.0	pH 11.5 - 12.0 - 12.5 - 13.0 - 13.5 - 14.0	100 strips/pk	111.3C
pH Indicator Strips pH 10.0 - 13.0	pH 10.0 - 10.5 - 11.0 - 11.5 - 12.0 - 12.5 - 13.0	100 strips/pk	110.3C
pH Indicator Strips pH 7.0 - 14.0	pH 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	100 strips/pk	109.3C
pH Indicator Strips pH 7.0 - 10.0	pH 7.0 - 7.5 - 8.0 - 8.5 - 9.0 - 9.5 - 10.0	100 strips/pk	127.2C
pH Indicator Strips pH 5.0 - 9.0	pH 5.0 - 5.5 - 6.0 - 6.5 - 7.0 - 7.5 - 8.0 - 8.5 - 9.0	100 strips/pk	126.2C
pH Indicator Strips pH 4.0 - 10.0	pH 4.0 - 4.5 - 5.0 - 5.5 - 6.0 - 6.5 - 7.0 - 7.5 - 8.0 - 8.5 - 9.0 - 9.5 - 10.0	100 strips/pk	106.3C
pH Indicator Strips pH 4.0 - 7.5	pH 4.0 - 4.3 - 4.6 - 4.9 - 5.2 - 5.5 - 5.8 - 6.1 - 6.4 - 6.7 - 7.0 - 7.5	100 strips/pk	125.2C
pH Indicator Strips pH 3.0 - 6.0	pH 3.0 - 3.5 - 4.0 - 4.5 - 5.0 - 5.5 - 6.0	100 strips/pk	144.1C
pH Indicator Strips pH 2.5 - 4.5	pH 2.5 - 3.0 - 3.3 - 3.6 - 3.9 - 4.2 - 4.5	100 strips/pk	114.2C
pH Indicator Strips pH 2.0 - 9.0	pH 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	100 strips/pk	113.3C
pH Indicator Strips pH 1.0 - 5.0	pH 1.0 - 1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0 - 4.5 - 5.0	100 strips/pk	148.1C
pH Indicator Strips pH 0 - 6.0	pH 0 - 0.5 - 1.0 - 1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0 - 4.5 - 5.0 - 5.5 - 6.0	100 strips/pk	103.3C
pH Indicator Strips pH 0 - 3.0	pH 0 - 0.5 - 1.0 - 2.0 - 3.0	100 strips/pk	143.1C
pH Indicator Strips pH 0 - 2.5	pH 0 - 0.5 - 1.0 - 1.5 - 2.0 - 2.5	100 strips/pk	122.2C
pH Indicator Strips pH 0 - 1.5	pH 0 - 0.3 - 0.5 - 0.8 - 1.0 - 1.5	100 strips/pk	121.2C



pH Strips

These products have been developed in order to offer improved accuracy in specific industries or uses.

Comparator pH Strips

These Comparator Strips are manufactured to have a unique single pad system of impregnated paper, which allows the resultant colour change to remain up to 5 times longer when compared to the standard comparator papers. These strips enable the pH value of a solution to be indicated cost effectively and quickly, measuring in intervals of 0.2 - 0.5 pH

Product	Description	Presentation	Product Code
Comparator Strips pH 1.0 - 3.5	pH 1.0 - 1.5 - 2.0 - 2.5 - 3.0 - 3.5	100 strips/pk	005.3
Comparator Strips pH 3.6 - 5.1	pH 3.6 - 3.9 - 4.2 - 4.5 - 4.8 - 5.1	100 strips/pk	006.3
Comparator Strips pH 4.0 - 8.0	pH 4.0 - 4.5 - 5.0 - 5.5 - 6.0 - 6.5 - 7.0 - 7.5 - 8.0	100 strips/pk	022.3
Comparator Strips pH 5.2 - 6.7	pH 5.2 - 5.5 - 5.8 - 6.1 - 6.4 - 6.7	100 strips/pk	007.3
Comparator Strips pH 6.8 - 8.3	pH 6.8 - 7.1 - 7.4 - 7.7 - 8.0 - 8.3	100 strips/pk	008.3
Comparator Strips pH 8.4 - 10.0	pH 8.4 - 8.7 - 9.0 - 9.3 - 9.6 - 10.0	100 strips/pk	009.3
BCG Comparator Strips pH 4.0 - 5.6	pH 4.0 - 4.2 - 4.4 - 4.6 - 4.8 - 5.0 - 5.2 - 5.4 - 5.6	100 strips/pk	023.3
BTB Comparator Strips pH 6.2 - 7.8	pH 6.2 - 6.4 - 6.6 - 6.8 - 7.0 - 7.2 - 7.4 - 7.6 - 7.8	100 strips/pk	044.3

Wine & Beer pH Indicator Strips

The Wine pH Indicator Strips are specific for testing the pH of the juice prior to fermentation during wine production. The Beer pH Indicator Strips are specific for testing the pH of beer mash during beer production.

Product	Description	Presentation	Product Code
Wine pH Indicator Strips pH 2.8 - 4.4	pH 2.8 - 3.2 - 3.6 - 4.0 - 4.4	50 strips/pk	181.1
Beer pH Indicator Strips pH 4.6 - 6.2	pH 4.6 - 5.0 - 5.4 - 5.8 - 6.2	50 strips/pk	182.1



CE Marked pH Indicator Strips

This new range of pH indicator papers carry the CE mark in accordance with IVD Directive 98/97/EC for determination of pH in human gastric aspirate. This satisfies the NPSA alert (NPSA/2011/PSA002) and the use of pH papers for the assessment of correct gastric tube placement. Our CE marked products are supplied with specific instructions for use and have increments of 0.5 pH with clear defined results. These products are for professional use only.

Product	Description	Presentation	Product Code
pH Indicator Strips pH 2.0 - 9.0 (CE)	pH 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	100 strips/pk	113.3CE
pH Indicator Strips pH 0 - 6.0 (CE)	pH 0 - 0.5 - 1.0 - 1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0 - 4.5 - 5.0 - 5.5 - 6.0	100 strips/pk	103.3CE
pH Indicator Paper pH 1-11 (CE)	pH 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11	10 books of 20 strips	004.1CE

J-QUANT test strips

J-QUANT test strips are our semi-quantitative indicator strips. The majority of the J-QUANT test strips can be carried out in 10-90 seconds making the application very quick for the end user. All J-QUANT tests are ready to use, precalibrated and contain all necessary equipment and reagents. The colour charts are adjusted and checked using certified standard solutions that are traceable to industry standards. The user can be sure to receive accurate readings whenever a test is undertaken



Product	Description	Presentation	Product Code
J-QUANT Ammonium 400	0 - 10 - 25 - 50 - 100 - 200 - 400 mg/L NH ⁴⁺	50 strips/pk	210.1
J-QUANT Ascorbic Acid 2000	0 - 50 - 100 - 200 - 300 - 500 - 700 - 1000 - 2000 mg/L	100 strips/pk	212.1
J-QUANT Carbonate Hardness	0 - 5 - 15 - 20 - 30 °d	100 strips/pk	214.1
J-QUANT Chlorine 5	0 - 0.5 - 1 - 3 - 5 mg/L	100 strips/pk	161.1C
J-QUANT Chlorine 20	0 - 1 - 3 - 5 - 10 - 20 mg/L	100 strips/pk	216.1
J-QUANT Chlorine 300	0 - 25 - 50 - 100 - 200 - 300 mg/L	100 strips/pk	163.1C
J-QUANT Chlorine 1000	0 - 50 - 100 - 250 - 500 - 1000 mg/L	100 strips/pk	164.1C
J-QUANT Fluoride 100	0 - 10 - 25 - 50 - 100 mg/L	100 strips/pk	173.5C
J-QUANT Nitrate 500	0 - 10 - 25 - 50 - 250 - 500 mg/L	100 strips/pk	176.5C
J-QUANT Nitrite 25	0 - 0.5 - 1 - 5 - 10 - 25 mg/L	100 strips/pk	175.5C
J-QUANT Nitrite 80	0 - 2 - 5 - 10 - 20 - 40 - 80 mg/L	100 strips/pk	218.1
J-QUANT Peracetic Acid 50	0 - 5 - 10 - 20 - 30 - 50 mg/L	100 strips/pk	167.5C
J-QUANT Peracetic Acid 500	0 - 100 - 150 - 200 - 250 - 300 - 400 - 500 mg/L	100 strips/pk	168.5C
J-QUANT Peracetic Acid 2000	0 - 500 - 1000 - 1500 - 2000 mg/L	100 strips/pk	228.1
J-QUANT Peroxide 25	0 - 0.5 - 2 - 5 - 10 - 25 mg/L	100 strips/pk	220.1
J-QUANT Peroxide 100	0 - 1 - 3 - 10 - 30 - 100 mg/L	100 strips/pk	165.5C
J-QUANT Peroxide 1000	0 - 100 - 200 - 400 - 600 - 800 - 1000 mg/L	100 strips/pk	222.1
J-QUANT Phosphate 100	0 - 3 - 10 - 25 - 50 - 100 mg/L	50 strips/pk	224.1
J-QUANT QAC 400R	0 - 100 - 200 - 300 - 400 mg/L Benzalkonium chloride	5m reel	160.5
J-QUANT QAC 400	0 - 100 - 200 - 300 - 400 mg/L Benzalkonium chloride	100 strips/pk	160.1
J-QUANT QAC 25-1000	0 - 25 - 50 - 100 - 250 - 500 - 1000 mg/L Benzalkonium chloride	100 strips/pk	160.2
J-QUANT QAC 200-1000	0 - 200 - 400 - 600 - 800 - 1000 mg/L Benzalkonium chloride	100 strips/pk	160.3
J-QUANT Silver 10	0 - 1 - 1.75 - 2.75 - 3.5 - 5 - 7 - 10 g/L	10 books of 20 strips	012.1
J-QUANT Sulphite 500	10 - 50 - 100 - 250 - 500 mg/L	100 strips/pk	172.5C
J-QUANT Total Chlorine 200	0 - 10 - 25 - 50 - 100 - 200 mg/L	5m reel	020.5
J-QUANT Water Hardness	3 - 4 - 7 - 14 - 21 °d	100 strips/pk	226.1

J-QUANT Ammonium 400

210.1

This test strip is for the fast and reliable determination of ammonium in solution.

Ammonia can result from the biological decay of plant and animal matter. High concentrations can be found in farming areas where fertilizers are regularly used. Ammonia itself is relatively harmless, however depending on the pH, part of ammonium is transformed to NH₃ gas which is harmful to aquatic life. Ammonium levels >1 mg/L are not suitable for fish. Control of ammonium is also important for the water supply.

Range: 0 - 10 - 25 - 50 - 100 - 200 - 400 mg/L NH⁴⁺

Pack qty: 50

Shelf Life: 2.5 years after production

Colour change: yellow to blue



J-QUANT Ascorbic Acid 2000

212.1

This test strip is for the fast and reliable determination of ascorbic acid in food.

Ascorbic acid (or Vitamin C) is naturally found in many foods. It is also added to juices or fruits as a stabiliser and reducing agent. These strips can be used to determine the level of ascorbic acid in juices and fresh cut surfaces of fruit and vegetables.

Range: 0 - 50 - 100 - 200 - 300 - 500 - 700 - 1000 - 2000 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: yellow to green-blue

J-QUANT Carbonate Hardness

214.1

This test strip is for the fast and reliable determination of alkalinity or carbonate hardness in water.

Carbonate hardness is a measure of the water's pH buffering capacity. If the carbonate hardness is high, addition of acids or bases will have a lower influence on the resulting pH. J-QUANT Carbonate Hardness can also be used for the control of water in swimming pools and aquariums.

Range: 5 - 10 - 15 - 20 - 30 °d

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: green to blue

J-QUANT Chlorine 5

161.1C

This test strip is for the fast and reliable determination of free chlorine in water.

Chlorine is widely used for disinfection of swimming pools, water mains and water reservoirs. Used correctly, harmful bacteria are safely destroyed, impurities removed and the growth of algae prevented. Regular checking of the chlorine concentration is essential to keep the desired levels. Excessive chlorine can affect the taste and smell of water but can also be hazardous. The lower level detection strips are ideal for testing residual levels in rinse water after disinfection.

Range: 0 - 0.5 - 1 - 3 - 5 mg/L

Pack qty: 100

Shelf Life: 3 years after production

Colour change: yellow to blue/brown

J-QUANT Chlorine 20

216.1

Similar to J-QUANT Chlorine 5 with a different detection range.

Range: 0 - 1 - 3 - 5 - 10 - 20 mg/L

Pack qty: 100

Shelf Life: 3 years after production

Colour change: yellow to blue/brown

J-QUANT Chlorine 300

163.1C

Similar to J-QUANT Chlorine 5 with a different detection range.

Range: 0 - 25 - 50 - 100 - 200 - 300 mg/L

Pack qty: 100

Shelf Life: 3 years after production

Colour change: yellow to blue/brown

J-QUANT Chlorine 1000 164.1C

Similar to J-QUANT Chlorine 5 with a different detection range.

Range: 0 - 50 - 100 - 250 - 500 - 1000 mg/L

Pack qty: 100

Shelf Life: 3 years after production

Colour change: yellow to blue/brown

J-QUANT Fluoride 100 173.5C

This test strip is for the fast and reliable determination of fluoride in solutions

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

Range: 0 - 10 - 25 - 50 - 100 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: red to white


J-QUANT Nitrate 500 176.5C

This test strip is for the fast and reliable determination of nitrate in solution.

Nitrate is a byproduct of biological decay from plant and animal matter. High concentrations can be found in farming areas where fertilisers are used. Industrial effluents may contain nitrate in higher levels. Farmers use this test to control the nitrogen content in soil and estimate the amount of fertiliser required. In ponds and aquariums nitrate testing can be used to control the water quality in place of ammonium.

Range: 0 - 10 - 25 - 50 - 100 - 250 - 500 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: white to pink/red


J-QUANT Nitrite 25 175.5C

This test strip is for the fast and reliable determination of nitrite in solution.

Nitrite is an undesired byproduct in cooling lubricants. It allows the formation of carcinogenic compounds which therefore need to be regularly tested for nitrite. In natural and drinking water, nitrite can lead to infant mortality and kill aquatic life.

Range: 0 - 0.5 - 1 - 5 - 10 - 25 mg/L

0 - 2 - 5 - 10 - 20 - 40 - 80 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: white to pink/red

J-QUANT Nitrite 80 218.1

Similar to J-QUANT Nitrite 25 with a different detection range.

Range: 0 - 2 - 5 - 10 - 20 - 40 - 80 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: white to pink/red

J-QUANT Peracetic Acid 50 167.5C

This test strip is for the fast and reliable determination of peracetic acid in solution.

Peracetic acid is a widely used disinfectant, in particular to disinfect packages in the beverage industry. After disinfection, the packages are rinsed to wash out any remaining disinfectant. These strips can be used to indicate whether the disinfectant has been completely removed.

Range: 0 - 5 - 10 - 20 - 30 - 50 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: white to blue

J-QUANT Peracetic Acid 500 168.5C

Similar to J-QUANT Peracetic Acid 50 with a different detection range.

Range: 0 - 100 - 150 - 200 - 250 - 300 - 400 - 500 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: white to blue

J-QUANT Peracetic Acid 2000 228.1

Similar to J-QUANT Peracetic Acid 50 with a different detection range.

Range: 0 - 500 - 100 - 1500 - 2000 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: white to blue/brown


J-QUANT Peroxide 25 220.1

This test strip is for the fast and reliable determination of peroxide in solution.

Hydrogen Peroxide is one of the most powerful oxidisers known. Its disinfection properties are higher than for chlorine or chlorine dioxide. Hydrogen peroxide is extensively used in the food and dairy industries and these strips can be used to ensure that the peroxide sanitiser has been fully purged from packages prior to filling. This guarantees the product is free from peroxide.

Range: 0 - 0.5 - 2 - 5 - 10 - 25 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: white to blue

J-QUANT Peroxide 100 165.5C

Similar to J-QUANT Peroxide 25 with a different detection range.

Range: 0 - 1 - 3 - 10 - 30 - 100 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: white to blue

J-QUANT Peroxide 1000 222.1

Similar to J-QUANT Peroxide 25 with a different detection range.

Range: 0 - 100 - 200 - 400 - 600 - 800 - 1000 mg/L

Pack qty: 100

Shelf Life: 2.5 years after production

Colour change: white to orange

J-QUANT Phosphate 100 224.1

This test strip is for the fast and reliable determination of phosphate in solution.

The presence of high phosphate in surface water may indicate domestic waste discharge, fertiliser run-off or the presence of industrial effluents or detergents. The phosphate content of surface water has a direct result in its ability to support the growth of certain organisms. Very high concentrations of phosphate may lead to eutrophication of rivers and lakes which may lead to death of aquatic life. These strips may also be used for the control of corrosion inhibitors.

Range: 0 - 3 - 10 - 25 - 50 - 100 mg/L

Pack qty: 50

Shelf Life: 2.5 years after production

Colour change: white to green/blue



J-QUANT QAC 400R **160.5**
 This test strip is for the fast and reliable determination of quaternary ammonium compounds (QAC) in solution.

QAC's are often used for the disinfection of medical devices, surfaces and closed cooling cycles. Using these strips can help control the concentration of the disinfectant. The test has been calibrated for use with benzalkonium chloride.

Range: 0 - 100 - 200 - 300 - 400 mg/L
 Pack qty: 5m x 7mm reel
 Shelf Life: 2.5 years after production
 Colour change: yellow to blue



J-QUANT QAC 400 **160.1**
 Similar to J-QUANT QAC 400R but in a strip form presentation.

Range: 0 - 100 - 200 - 300 - 400 mg/L
 Pack qty: 100 strips
 Shelf Life: 2.5 years after production
 Colour change: yellow to blue

J-QUANT QAC 25-1000 **160.2**
 Similar to J-QUANT QAC 400 with a different detection range.

Range: 0 - 25 - 50 - 100 - 250 - 500 - 1000 mg/L
 Pack qty: 100 strips
 Shelf Life: 2.5 years after production
 Colour change: yellow to blue

J-QUANT QAC 200-1000 **160.3**
 Similar to J-QUANT QAC 400 with a different detection range.

Range: 0 - 200 - 400 - 600 - 800 - 1000 mg/L
 Pack qty: 100 strips
 Shelf Life: 2.5 years after production
 Colour change: yellow to blue

J-QUANT Silver **012.1**
 This test paper is for the fast and reliable determination of silver.

The fixation is the final process in the development of films and photos during which time excess silver is washed out. The content of the fixing bath can be easily monitored with this test paper.

Range: 0 - 1 - 1.75 - 2.5 - 3.5 - 5.0 - 7.0 - 10.0 g/L
 Pack qty: 10 books of 20 strips
 Shelf Life: 3 years after production
 Colour change: yellow to brick red/brown

J-QUANT Sulfite **172.5C**
 This test paper is for the fast and reliable determination of sulfite in solution.

In process and boiler water, sulfite is used as an oxygen scavenger. To avoid overdosing, the concentration needs to be controlled regularly. These strips can also be used to control the sulfite concentration in foods treated with sulphur compounds as well as in the process of wine making to monitor production and the quality of the wine.

Range: 0 - 1 - 1.75 - 2.5 - 3.5 - 5.0 - 7.0 - 10.0 g/L
 Pack qty: 10 books of 20 strips
 Shelf Life: 2.5 years after production
 Colour change: white to salmon pink



J-QUANT Total Chlorine **020.5**
 Similar to J-QUANT Chlorine 5 with a different detection range and indication of total chlorine.

Range: 0 - 10 - 25 - 50 - 100 - 200 mg/L
 Pack qty: 5m x 7mm reel
 Shelf Life: 3 years after production
 Colour change: white to salmon pink



J-QUANT Water Hardness **226.1**
 This test strips is for the determination of water hardness.

The hardness of the water depends on the content of calcium and magnesium salts. The total sum of these salts determines the hardness of the water. Water is often simplified as soft water or hard water.

Range: 3 - 4 - 7 - 14 - 21 °d
 Pack qty: 100 strips
 Shelf Life: 3 years after production
 Colour change: yellow to brown

visit the new website at
johnsonstestpapers.com

contact our sales team at
sales@jtp.uk.com for:

custom sizes and shapes
 private labeling
 OEM
 R&D activities

Test Papers

Test Papers are for the qualitative determination of ions and chemical compounds. With the help of these test papers, the presence of an ion or chemical compounds can be indication with a simple interpretation of the result. A colour change is seen if the concentration of the test ion or compound is above the specific minimum detection limit.

Product	For the detection of	Presentation	Product Code
Backing Paper		500 strips	033.10
Cadmium Sulphide Paper	Gold plating efficiency	500 strips	012.10
Cobalt Chloride Paper	Humidity in air	10 books of 20 strips	015.1
Humidity Indicator Paper	Humidity in air 45%-55% (Relative)	100 strips	016.95
Lead Acetate Paper	Hydrogen Sulphide	10 books of 20 strips	017.1
		5m reel	017.5
Mercuric Chloride Paper	Arsenic (toxic)	100 strips	021.9
Nioxime Paper	Porosity of gold, palladium and rhodium	500 strips	013.10
		10 books of 20 strips	018.1
Starch Paper	Iodine	5m reel	018.5
		3 reel refill	018.5R
		10 books of 20 strips	019.1
Starch & Potassium Iodide Paper	Oxidising Agents	5m reel	019.5
		3 reel refill	019.5R
Water Coolant (EC64) Paper	pH of Anti-Freeze	100 strips	025.10
Water Finder Paper	Water in Oil	200 strips	036.10



Backing Paper

This paper is specifically designed to be used with Cadmium Sulfide Paper (012.10) and Nioxime Paper (013.10)

Presentation: test paper, 152mm x 25mm
Pack qty: 500

Cadmium Sulfide Paper

This paper is used in an electrographic test for the determination of the efficiency of gold plating before scratch brushing.

Presentation: test paper, 152mm x 25mm
Pack qty: 500

033.10

Humidity Indicator Paper

This test paper is a cobalt chloride based paper manufactured to the requirements of DEF 81-132/1. These papers give a quantitative estimation of relative humidity. When the paper has been allowed to come into equilibrium with the ambient atmosphere, the colour changes over the RH range of 45-55%. Humidity Indicator Paper is also available in other sizes. Please contact our sales department for more information.

Presentation: test paper, 30mm x 30mm
Limit of sensitivity: 45-55% RH
Pack qty: 100
Colour change: blue to pink

016.95

Cobalt Chloride Paper

This test is used for the determination of the relative atmospheric humidity. The paper is exposed to the atmosphere and the colour will change to and from blue to pink. Moisture sensitive goods such as electronics have to be stored at low humidity. These goods after often packed in a sealed plastic bag along with a desiccant. This paper can be used to control if the desiccant is active and if moisture is effectively being controlled.

Presentation: test paper
Limit of sensitivity: 2% RH
Pack qty: 10 books of 20 strips
Colour change: blue to pink

015.1

Starch Paper

This paper is specially prepared for the detection of iodine. Free iodine, which is frequently encountered in qualitative analysis, reacts to turn the paper to a deep blue colour.

Presentation: test paper
Pack qty: 10 books of 20 strips (018.1)
5m x 7mm reel (018.5)
5m reel refill (018.5R)
Colour change: white to blue

Starch & Potassium Iodide Paper

This test paper allow the quick and easy detection of strong oxidising agents like nitrite and chlorine. Nitrite and chlorine oxidise potassium iodide to form an elemental iodine which reacts with starch to form a blue-violet complex.

Presentation: test paper
Limit of sensitivity: 1 mg/L NO₂⁻ / 1 mg/L Cl⁻
Pack qty: 10 books of 20 strips (019.1)
5m x 7mm reel (019.5)
5m reel refill (019.5R)
Colour change: white to blue-violet



Lead Acetate Paper

This test allows the detection of hydrogen sulphide. This gas occurs in the processing of raw oil and can be toxic at even low concentrations. Sulphide containing solutions also give a positive reaction.

Presentation: test paper
Limit of sensitivity: 1 drop of solution containing 5 mg/L sulfide (S²⁻)
Pack qty: 10 books of 20 strips (017.1)
5m x 7mm reel (017.5)
Colour change: white to brown/black

Mercuric Chloride Paper

This test paper allows the detection of arsine in the gas phase. Arsenic in solutions has to be converted in to arsine (AsH₃) with Zn/acid and purged from the solution. The arsine is detected directly at the boundary layer between water and air. This test paper can also be used for the determination of arsenic in grape must and wine.

Presentation: test paper, 51mm x 51mm
Limit of sensitivity: 0.5 µg As
Pack qty: 100
Colour change: white to red/brown

Nioxime Paper

This paper is used in electrographic porosity tests of gold, palladium and rhodium coatings on a nickel undercoat.

Presentation: test paper, 152mm x 25mm
Pack qty: 500

021.9

Water Coolant (EC64) Paper

This test has been specifically developed to detect the build up of acidity in cooling systems containing ethylene glycol and similar anti-freeze additives.

Presentation: test paper, 75mm x 10mm
Pack qty: 100
Colour change: red to green

025.10



Water Finder Paper

This test allows the quick and easy measurement of water at the bottom of petrol and fuel tanks.

In petrol and fuel tanks, water will accumulate over time forming a layer at the bottom of the tank. A strip is lowered into the tank until it reaches the bottom. Any water present will dissolve the yellow/brown layer leaving the white backing exposed. The thickness of the water layer corresponds to the white part of the strip.

Presentation: test strips, 200mm x 10mm
Limit of sensitivity: 1-2mm water layer
Pack qty: 200
Colour change: brown to white

036.10

Qualitative Filter Papers

Our qualitative filter papers are recommended for use in analytical methods which determine or identify particular constituents of a mixture regardless of the amount present. Qualitative filter papers are often used in routine separation work that still requires high purity and consistent performance.

We offer a complete range of low ash filter papers for general laboratory work that provides you with the correct combination of particle retention, filtration speed, loading capacity and wet-strength.

Key Features

- Qualitative analysis
- Low ash content 0.06%
- Untreated
- Consistent
- Wet-strengthened available
- Custom packaging



Standard Grade (Non Wet-Strengthened)

Standard qualitative filter papers are suitable for quadrant folded or gravity flow applications. They are cellulose based providing high purity but will weaken when wet. The inherent strength of standard grades does not pose a problem when they are used in routine quadrant folded applications. We do not recommend these grades for use in vacuum work or when wet handling is required.

301 (2-3µM - Slow Speed)

This grade is a slow flowing filter designed to retain fine particles encountered in qualitative analysis. This filter can be widely used in water analysis, biological products and fine precipitates.

302 (4-7µM - Medium Speed)

This grade has finer particle retention than grade FP2 but with a slower filtration speed and higher absorption. It can be used in general laboratory applications and ideal for Buchner funnels.

303 (6-10µM - Medium Speed)

This grade covers a wide range of laboratory applications and is used for clarifying liquids and for rapid filtration of coarser precipitates.

304 (10-12µM - Fast Speed)

This grade is used for the filtration of coarse particles and gelatinous precipitates. This filter is commonly used in student laboratories as a strong general purpose filter.

305 (20-25µM - Very Fast Speed)

This very fast filtering grade is used for larger particles and gelatinous precipitates such as in oils and resin solutions.

Code	301	302	303	304	305
Properties	Slow	Medium	Medium	Fast	Very Fast
Retention rate (µM)	2 - 3	4 - 7	6 - 10	10 - 12	20 - 25
Weight (g/m ²)	100	160	100	85	95
Thickness (µm)	200	370	200	200	215

Filter circles, 100 pcs/box

mm	301	302	303	304	305
55	301055	302055	303055	304055	305055
70	301070	302070	303070	304070	305070
80	301080	302080	303080	304080	305080
90	301090	302090	303090	304090	305090
100	301100	302100	303100	304100	305100
110	301110	302110	303110	304110	305110
125	301125	302125	303125	304125	305125
130	301130	302130	303130	304130	305130
150	301150	302150	303150	304150	305150
185	301185	302185	303185	304185	305185
200	301200	302200	303200	304200	305200
240	301240	302240	303240	304240	305240
250	301250	302250	303250	304250	305250
300	301300	302300	303300	304300	305300
320	301320	302320	303320	304320	305320
350	301350	302350	303350	304350	305350
400	301400	302400	303400	304400	305400
450	301450	302450	303450	304450	305450
500	301500	302500	303500	304500	305500

Wet-Strengthened Grade

321 (4-7µM - Medium Speed)

A vellum based filter which can be used as an alternative to FP93 where a slower speed is required.

322 (7-10µM - Fast Speed)

A vellum based filter use for qualitative analysis for general laboratory filtration in education, healthcare and the pharmaceutical industry.

323 (8-10µM - Fast Speed/ Creped)

This fast filtering creped paper is frequently used in the determination of sucrose in sugar cane and the pharmaceutical industry. The creped surface offers a higher surface area to increase filtration speed.

324 (20µM - Very Fast Speed/ Creped)

This very fast filtering creped grade filter is recommended for thick and gelatinous solutions while being thick and very resistant.

325 (25µM - Very Fast Speed)

This very fast filtering grade is recommended for thick and gelatinous solutions while being thick and very resistant.

Code	321	322	323	324	325
Properties	Medium	Fast	Creped	Fast, Creped	Fast, Smooth
Retention rate (µM)	4-7	7-10	8-10	20	25
Weight (g/m ²)	74	65	75	130	75
Thickness (µm)	190	170	90	430	200

Filter circles, 100 pcs/box

mm	321	322	323	324	325
55	321055	322055	323055	324055	325055
70	321070	322070	323070	324070	325070
80	321080	322080	323080	324080	325080
90	321090	322090	323090	324090	325090
100	321100	322100	323100	324100	325100
110	321110	322110	323110	324110	325110
125	321125	322125	323125	324125	325125
130	321130	322130	323130	324130	325130
150	321150	322150	323150	324150	325150
185	321185	322185	323185	324185	325185
200	321200	322200	323200	324200	325200
240	321240	322240	323240	324240	325240
250	321250	322250	323250	324250	325250
300	321300	322300	323300	324300	325300
320	321320	322320	323320	324320	325320
350	321350	322250	323350	324350	325350
400	321400	-	323400	324400	325400
450	321450	-	323450	324450	325450
500	321500	-	323500	324500	325500

Quantitative Filter Papers (Ashless)

Our series of extremely high purity, acid washed filter papers are designed for use in analytical and gravimetric analysis. The quantitative grades are manufactured from top quality cotton linters using ultra pure water and further treated with acid to remove any remaining organic and inorganic impurities.

Key Features

- Quantitative analysis
- Low ash content 0.002%
- High wet-strength
- Consistent performance
- Hardened available
- Customs packaging



Ashless Grade (Ash 0.002%)

These standard ashless grades are high purity filter papers suitable for routine quantitative gravimetric techniques and in the preparation of samples for use in the analysis involving instrumental techniques.

351 (7-9 μ M - Slow Speed)

This is fine retention filter for critical gravimetric analysis of very fine particles such as barium and lead sulphates, nickel, zinc sulphate, calcium hydroxide and fluoride.

352 (8-12 μ M - Medium Speed)

This grade has medium flow and good particle retention for common gravimetric analysis. This filter is ideal and an intermediate filter between the requirements of speed and retention.

353 (10-15 μ M - Fast Speed)

This is a fast filtering grade for rapid filtration of coarse precipitates such as iron hydroxides and many other metallic sulphides.

354 (12-16 μ M - Very Fast Speed)

This very fast filtering grade filter is recommended for thick and gelatinous solutions or large precipitates such as iron or aluminium hydroxides. It is also recommended for fast analysis procedures for unstable precipitates such as silicon.

Code	351	352	353	354
Properties	Slow	Medium	Medium/Fast	Fast
Retention rate (μ M)	7 - 9	8 - 12	10 - 15	12 - 16
Weight (g/m ²)	80	80	80	80
Thickness (μ m)	290	270	250	250

Filter circles, 100 pcs/box

mm	351	352	353	354
55	351055	352055	353055	354055
70	351070	352070	353070	354070
90	351090	352090	353090	354090
110	351110	352110	353110	354110
125	351125	352125	353125	354125
150	351150	352150	353150	354150
185	351185	352185	353185	354185
210	351210	352210	353210	354210
240	351240	352240	353240	354240
250	351250	352250	353250	354250
300	351300	352300	353300	354300
320	351320	352320	353320	354320
350	351350	352350	353350	354350



Hardened Ashless Grade (Ash 0.02%)

These specially treated hardened ashless grades are available for critical quantitative analysis techniques requiring increased wet-strength and handling capacity. These grades have a tough, smooth surface free from loose fibres and ideal for collecting wet precipitates. Each grade is generally used because of their high chemical resistance to strong acid and alkali.

371 (7-9 μ M - Slow Speed)

This is fine retention filter for critical gravimetric analysis of very fine particles such as barium and lead sulphates, nickel, calcium oxalate and calcium fluoride.

372 (8-12 μ M - Medium Speed)

This grade has medium flow and good particle retention and commonly used for applications requiring high chemical resistance. This filter is often used for filtering trace elements, collecting hydroxides after precipitation by strong alkalis and the in the analysis of metals in acids and alkali solutions.

373 (12-16 μ M - Fast Speed)

This is a fast filtering grade for rapid filtration of coarse precipitates in acid and alkali solutions.

Code	371	372	373
Properties	Slow	Medium	Fast
Retention rate (μ M)	7 - 9	8 - 12	12 - 16
Weight (g/m ²)	80	80	80
Thickness (μ m)	250	270	290

Filter circles, 100 pcs/box

mm	371	372	373
55	371055	372055	373055
70	371070	372070	373070
90	371090	372090	373090
110	371110	372110	373110
125	371125	372125	373125
150	371150	372150	373150
185	371185	372185	373185
210	371210	372210	373210
240	371240	372240	373240
250	371250	372250	373250
300	371300	372300	373300
320	371320	372320	373320
350	371350	372350	373350

Glass Microfibre Filters

Our glass microfibre filters are manufactured from 100% borosilicate glass. Due to their intrinsic properties, these filters have a wide range of applications in laboratory analysis especially when fine filtrations and high loading capacity is required. Applications include environmental analysis for water, wastewater, process biochemistry and gravimetric analysis involving ignition of the sample.

- Key Features**
- Qualitative analysis
 - 100% pure borosilicate glass
 - Rapid flow rate
 - Fine particle retention
 - High loading capacity
 - Chemical and thermal resistance (up to 380°C)
 - Custom packaging
 - Brilliant white

50A (1.2µM - Fast Speed)

This grade offers fine particle retention with high filtration speed and good loading capacity. It may be used in general laboratory filtration including atmospheric and water pollution monitoring. This grade is also well suited for filtration of water and protein, testing of algae, bacteria cultures and radioimmunoassay with weak beta emitters.

50B (1.1µM - Medium Speed)

This very thick grade offers finer particle retention than 50A with a high wet strength and loading capacity. This grade can be used for the clarification of liquid suspensions loaded with fine particles. This filter may also be used as a pre-filter and also found in quantification of solids and LSC techniques that require high loading capacity.

50C (1.2µM - Fast Speed)

This standard grade found in many environmental applications offers slightly more retention than 50A. This grade is recommended for the collection of suspended solids in potable water and industrial waste.

506 (0.9-1.2µM - Slow Speed)

This is fine retention filter suitable for the recovery of very fine particles. This filter has a retention comparable to membrane filter while providing higher flow and loading capacity. This grade is recommended for the filtration of fine precipitated proteins.

508 (3.1µM - Very Fast Speed)

This grade offers better filtration speed and a higher loading capacity than an analytical filter paper of similar particle retention. This filter is highly recommended as a pre-filter for membrane filters.

Code	50A	50B	50C	506	508
Properties	Fast, high loading	Medium - Fast, very high loading	Medium - Fast, high loading	Fast, very high loading	Medium, high loading
Retention rate (µM)	1.6	1.0	1.2	0.9 - 1.2	3.1
Weight (g/m²)	37	140	55	75	68
Thickness (µm)	190	700	270	480	600

Filter circles, 100 pcs/box

mm	50A	50B	50C	506	508
21	50A021	50B021	50C021	506021	508021
24	50A024	50B024	50C024	506024	508024
25	50A025	50B025	50C025	506025	508025
47	50A047	50B047	50C047	506047	508047
55	50A055	50B055	50C055	506055	508055
90	50A090	50B090	50C090	506090	508090
110	50A110	50B110	50C110	506110	508110
125	50A125	50B125	50C125	506125	508125

Also available as a box of 50 sterile individually packed filters (50C047S / 506047S)



Micro Filtration Membranes

Membrane filtration offer a very convenient, fast and economical separation method. They are often used as a neutral sample support for further analysis.

Membrane Type	Description	Chemical Compatibility	Maximum Operating Temperature	Sterilisation
Cellulose Acetate	Low protein-binding, well suited for sterile filtration and clarification of aqueous solutions, nutrient media, buffers and sera. These hydrophilic membranes offer excellent flow rates (22ml/min)	Stable within pH 4-8 and resistant against most alcohols, hydrocarbons and oils	180°C	Autoclaving at 121°C or 134°C with gamma radiation or ethylene oxide
Cellulose Nitrate	Sterile or non-sterile. Gridded or non-gridded and individually packed. Used in the analysis of bacteria and colony counting. Can be supplied in other sizes	Thermally stable in the dry. Excellent resistance to solvents and acids	125°C	Autoclaving at 121°C
Mixed Cellulose Esters	Suitable for filtration of organic solvents. Hydrophilic. Light adsorption rate (< 24micrograms/cm ²)	Resistant to aqueous solutions between pH 3-12.		Autoclaving at 121°C or 134°C, dry heat at 180°C, gamma radiation at 25kGy) or with ethylene oxide
Nylon	Membranes are hydrophilic and widely used in both aqueous and organic solvent filtration applications. Ideal for sterilisation and clarification of buffers and nutrient media with a low level of extractables	Resistant to many solvents and alkaline solutions between pH 3-12	100°C	Autoclaving at 121°C or 134°C or with ethylene oxide
PTFE	Hydrophobic membrane suitable for air and gas filtration. Can be used to filter particulates from both liquid and gas samples	Extremely resistant to solvents, acids and bases	200°C	Autoclaving at 121°C or 134°C or with ethylene oxide
PES	Have a uniform pore structure with high mechanical stability and chemically inert. Offer excellent flow rates for critical throughput and the lowest protein adsorption. Ideal for biological and pharmaceutical specimens.	Resistant to some solvents and aggressive, aqueous solution between pH 1-13	200°C	Autoclaving at 121°C or 134°C or with ethylene oxide

Sterile Micro Filtration Membranes

Membrane Type	mm	Gridded	Retention (µM)	Pack of 100
Cellulose Acetate	47	No	0.20	CAM047020S
Cellulose Acetate	47	No	0.45	CAM047045S
Cellulose Nitrate	47	Yes	0.20	CNM047020S
Cellulose Nitrate	47	Yes	0.45	CNM047045S

Non-Sterile Micro Filtration Membranes

Membrane Type	mm	Gridded	Retention (µM)	Pack of 100
Cellulose Acetate	47	No	0.20	CAM047020
Cellulose Acetate	47	No	0.45	CAM047045
Cellulose Acetate	47	No	0.65	CAM047065
Cellulose Acetate	47	No	0.80	CAM047080
Cellulose Acetate	47	No	1.20	CAM047120
Cellulose Acetate	47	No	3.00	CAM047300
Cellulose Acetate	47	No	5.00	CAM047500
Cellulose Nitrate	47	No	0.20	CNM047020
Cellulose Nitrate	47	No	0.45	CNM047045
Cellulose Nitrate	47	No	0.65	CNM047065
Cellulose Nitrate	47	No	0.80	CNM047080
Cellulose Nitrate	47	No	1.20	CNM047120
Cellulose Nitrate	47	No	3.00	CNM047300
Cellulose Nitrate	47	No	5.00	CNM047500
Mixed Cellulose Esters	47	No	0.20	MCM047020
Mixed Cellulose Esters	47	No	0.45	MCM047045
Mixed Cellulose Esters	47	No	0.65	MCM047065
Mixed Cellulose Esters	47	No	0.80	MCM047080
Mixed Cellulose Esters	47	No	1.20	MCM047120
Mixed Cellulose Esters	47	No	3.00	MCM047300
Mixed Cellulose Esters	47	No	5.00	MCM047500
Nylon	47	No	0.20	NM047020
Nylon	47	No	0.45	NM047045
PTFE	47	No	0.20	PTFEM047020
PTFE	47	No	0.45	PTFEM047045
PES	47	No	0.20	PESM047020
PES	47	No	0.45	PESM047045

Membranes are also available in other sizes. Please contact our sales team for more information at sales@jtp.uk.com

Cellulose Extraction Thimbles

Made from pure cellulose, these thimbles are for fast and reliable analysis in the areas of food control and environmental monitoring. These thimbles are suitable for Soxhlet-type or similar devices to extract certain compounds out of solid material with an appropriate solvent.

Applications include

- Extraction of fatty/greasy material in foodstuffs, paints and bituminous material
- Detection of resins and grease in cellulose
- Analysis of pesticide waste, poly-aromatic carbohydrates and dioxins in foodstuffs
- Determination of oil content in oil-bearing seeds
- Extraction of secondary plant constituents
- Extraction of active ingredients from medicaments
- Extraction of plasticisers from synthetic materials

Dimensions Ø x H	Pack of 25
Ø 18 x 37 mm	81837
Ø 22 x 60 mm	82260
Ø 22 x 80 mm	82280
Ø 25 x 80 mm	82580
Ø 26 x 60 mm	82660
Ø 26 x 80 mm	82680
Ø 27 x 80 mm	82780
Ø 30 x 60 mm	83060
Ø 30 x 80 mm	83080
Ø 30 x 100 mm	830100
Ø 33 x 80 mm	83380
Ø 33 x 130 mm	833130
Ø 37 x 130 mm	837130
Ø 37 x 150 mm	837150
Ø 41 x 123 mm	841123
Ø 41 x 150 mm	841150
Ø 46 x 130 mm	846130
Ø 46 x 165 mm	846165
Ø 54 x 170 mm	854170
Ø 58 x 170 mm	858170
Ø 64 x 240 mm	864240
Ø 70 x 200 mm	870200
Ø 70 x 240 mm	870240
Ø 80 x 200 mm	880200
Ø 80 x 250 mm	880250



Chromatography and Blotting Papers

Recommended for chromatographic analysis and preparations and blotting techniques with gels. The papers are made from pure cotton linters without the addition of additives resulting in a smooth homogenous surface. The papers have a high performance resolution and wet-strength. These papers are available in sheet sizes of either 460mm x 570mm or 580mm x 600mm in packs of 100 sheets. These papers are also available in other sheets sizes or circles. Please contact the sales team for more information.

Application	Weight (g/m ²)	Retention (µM)	Size	Pack of 100
Chromatography	95	215	460mm x 570mm	9104657
Chromatography	95	215	580mm x 600mm	9125860
Blotting	190	190	460mm x 570mm	9204657
Blotting	190	190	580mm x 600mm	9205860
Blotting	700	400	460mm x 570mm	9224657
Blotting	700	400	580mm x 600mm	9225860

Germination Test Paper

These papers are recommended for the reliable evaluation of seeds. All papers are made of pure cellulose and free from mould, bacteria and toxic substances which may interfere with the growth of seeds. The papers have a high absorption capacity for water absorption but not allowing the roots to grow in the paper. Available in 50mm diameter circles or pleated strips with 50 folds. These papers are available in three colours; white (Grade 930W), yellow (Grade 930Y) and grey (Grade 930G). Please contact our sales team for more information.

Perfume Blotters

These papers are ideal for the cosmetics industry and perfume shops for sampling and testing fragrances. These papers are available in either 120mm x 10/5mm (9501210) or 160mm x 10/5mm (9501610). Please contact our sales team for more information.

Johnson Test Papers Brand Cross Reference Guide*

Whatman to Johnson Test Papers

Whatman Grade	Johnson Grade
1, 1CHR	304
2, 2 CHR, 20 CHR	303
3, 3 CHR	302
4, 4 CHR	305
5	301
6	301
40	352
41	354
42	351
43	353
50	371
52	372
54	373
91	323
93	321, 322
113	324
114	325
GFA	50A
GFB	50B
GFC	50C
GF6	506
GF8	508
Student Grade	322

Machery-Nagel to Johnson Test Papers

MN Grade	Johnson Grade
616md	303
618	302
617	305
619de	301
619	301
713	325
620	323
601	324
612	321
615	322
640d	351
640m	352
640md	353
640w	354
640de	371
616	372
GF-1	50A
GF-2	50B
GF-3	50C
MN 85/90	506

Sartorius to Johnson Test Papers

Sartorius Grade	Johnson Grade
292	304
292a	303
3 S/H	302
1288	305
1288	324
1291, 292	301
6, 41b	325
601/N	323
6 S/N	324
3m/N	322
393	351
389	354
393	351
390	371
392	372
388	373
MGA	50A
MGB	50B
MGC	50C
MGG	506

ALBET LabScience to Johnson Test Papers

ALBET Grade	Johnson Grade	ALBET Grade	Johnson Grade
400	322	FP589/1	354
FP604	305	FP589/2	353
FP591	302	FP589/5	352
FP595 / FP597	304	FP589/3	351
FP593	303	FPGF50	50A
FP602h	301	FPGF51	50B
FP1573	373	FPGF52	50C
FP1574	372	FPGF6	506
FP1575	371	FPGF8	508

Standard Terms & Conditions of Sale

1. Definitions

In these terms and conditions, the following words shall have the following meanings:-
"the company" shall mean Johnson Test Papers Ltd.
"the Goods" shall mean the products or articles which are manufactured or sold by the company.
"the Buyer" shall mean the purchaser of the goods from the Company.

2. The Contract

2.1 All orders are accepted under these Terms & Conditions alone.
2.2 These Terms & Conditions exclude any other Terms & Conditions inconsistent therewith which a buyer might seek to impose even though such other terms and conditions may be submitted in a later document and/or purport to exclude or supersede any Terms & Conditions inconsistent with them or may be contained in any offer acceptance or counter-offer made by the Buyer.
2.3 No variations of these Terms & Conditions is permitted unless expressly accepted by a Director of the Company in writing.
2.4 All verbal orders must be confirmed to the Company in writing by email, fax or by post.

3. Cancellation

3.1 No cancellation by the Buyer is permitted except where expressly agreed by the Company.
3.2 The Buyer will in the event of agreed cancellation by the Buyer indemnify the Company fully against all expenses incurred up to the time of such cancellation.

4. Price

4.1 All prices charged are those ruling at the date of acceptance of the order from the Buyer unless otherwise stated.
4.2 Unless otherwise stated the prices charged are net ex works exclusive of Value Added Tax.
4.3 The Company reserves the right at any time prior to delivery of the Goods to adjust the price to take account of any increase in the cost of raw materials, labour or services, taxes or duties or any currency fluctuations affecting the cost of imported materials.

5. Terms of Payment

5.1 The Buyer shall make payment net cash with the Buyer's order except where the Company has agreed to open a credit account. In the case, the Buyer shall make payment net cash against every invoice from the Company within 30 days of the date of such invoice.
5.2 Time for payment shall be of the essence.
5.3 The Company reserves the right to charge interest at 2% per month on all overdue accounts, such interest being deemed to accrue on a day to day basis from the due date for payment under clause 5.1.
5.4 The Buyer shall have no right of set off, statutory or otherwise.
5.5 If the Buyer (being a company) has a petition presented for its winding-up or for an administration order under the Insolvency Act 1986 or passes a resolution for voluntary winding-up otherwise than for the purpose of a bona fide amalgamation or reconstruction or compounds with its creditors or has a receiver appointed of all or any part of its assets or (being an individual) becomes bankrupt or insolvent or enters into any arrangement with its creditors or commits a material or serious breach of this Agreement (and in the case of such a breach being remediable fails to remedy it within 7 days of receiving notice to do so), he will be deemed to have repudiated the Contract.
5.6 The Company reserves the right at any time at its discretion to demand security for payment before continuing with or delivering any Order.

6. Delivery

6.1 All items quoted for delivery shall be delivered to the Buyers address or, if different, as specified on the Buyer's order.
6.2 The Company shall be responsible for the delivery of Goods to the delivery address, but the cost of such delivery, packing and insurance may be charge to the Buyer.
6.3 Time of delivery is not of the essence.
6.4 The Company shall not be liable for any loss whatsoever or howsoever arising caused by its non-delivery.
6.5 The Company reserves the right to make delivery by instalments and to tender a separate invoice in respect of each instalment.
6.6 When delivery is to be by instalment or the Company exercises its right to delivery by instalments under clauses 6.5 hereof or if there be any delay in the delivery of any one or more instalments for whatever reason this will not entitle the Buyer to treat the contract as repudiated or to damages.
6.7 Deviations in quantity of the Goods delivered (representing not more than 10 per cent by value) from that stated in the Buyer's order shall not give the Buyer any right to reject the Goods or to claim damages and the Buyer shall be obliged to accept and pay at the contract rate for the quantity of the Goods delivered.

7. Risk and the Passing of Property

7.1 Risk in the Goods shall be pass the Buyer when the Goods are delivered to, or collected by, the Buyer or his agent.
7.2 Notwithstanding risk in the goods passing in accordance with clause 7.1 hereof, title in the goods shall not pass to the Buyer until payment has been received by the Company for the Goods and no other amounts are then outstanding from the Buyer to the Company in respect of other Goods supplied by the Company.
7.3 The Buyer is licensed by the Company to use or agree to sell the Goods delivered to the Buyer subject to the provisions of clauses 7.4 and 7.5.
7.4 Until title to the Goods passes:-

7.4.1 The Buyer will hold the Goods as fiduciary agent and bailee for the Company;
7.4.2 The Goods shall be kept separate and distinct from all other property of the Buyer and of third parties and in good and substantial repair and condition and be stored in such a way as to be clearly identifiable as belonging to the Company;
7.4.3 The Company may at any time revoke the power of sale and use of the Goods by notice to the Buyer if the Buyer is in default for longer than 14 days in the payment of any sum whatsoever due to the Company (whether in respect of the Goods or any other goods supplied at any time by it to the Buyer) or if the Company has bona fide doubts as to the solvency of the Buyer);
7.4.4 the Buyer's power of sale and use shall automatically cease if the Buyer has a petition presented for its winding-up or for an administration order under the Insolvency Act 1986 or passes a resolution for voluntary winding-up otherwise than for the purposes of a bona fide amalgamation or reconstruction or compounds with its creditors or has a receiver appointed of all or any part of its assets or becomes bankrupt or insolvent or enters into any arrangements with creditors or takes or suffers any similar action in consequence of debts or carries out or undergoes any analogous act or proceedings under foreign law;
7.4.5 upon determination of the Buyer's power of sale and use the Buyer shall place any of the Goods, in its possession or under its control, at the disposal of the Company and the Company shall be entitled to enter the premises of the Buyer for the purpose of removing the Goods.

7.5 The Company shall at any time be entitled to appropriate any payment made by the Buyer in respect of any Goods in settlement of such invoices or accounts in respect of such goods as the Company may in its absolute discretion think fit notwithstanding any purported appropriation to the contrary by the Buyer.

8. Lien and Stoppage

Until such time as the title in the Goods has passed to the Buyer the Company has the right to withhold delivery if the Buyer (being a Company) has a petition presented for its winding-up or for an administration order under the Insolvency Act 1986 or passes a resolution for voluntary winding-up otherwise than for the purpose of a bona fide amalgamation or reconstruction or compounds with its creditors or has a receiver appointed of all or part of its assets or (being an individual) becomes bankrupt or insolvent or enters into any arrangements with creditors or takes or suffers any similar action in consequence of debts or carries out or undergoes any analogous act or proceedings under the foreign law.

9. Inspection/Shortage

9.1 The Buyer is under a duty whenever possible to inspect the Goods on delivery or on collection as the case may be.
9.2 Where the Goods cannot be examined the carriers note or such other note as appropriate shall be marked "not examined".
9.3 The Company shall be under no liability for any damage or shortages that would be apparent on careful inspection if the terms of this clause are not complied with and, in any event will be under no liability if a written

complaint is not delivered to the Company within 10 days of delivery detailing the alleged damage or shortage.
9.4 In all cases where defects or shortages are complained of the Company shall be under no liability in respect thereof unless an opportunity to inspect the Goods is supplied to the Company before any use is made thereof or any alteration or modification is made thereto by the Buyer.
9.5 Subject to Clause 9.3 and 9.4, the Company shall make good and shortage in the Goods and where appropriate replace any goods damaged in transit as soon as it is reasonable to do so, but otherwise shall be under no liability whatsoever arising from such shortage or damage.

10. Warranty

10.1 The Company warrants that it has title to and the unencumbered right to sell the Goods.
10.2 It is the Buyer's responsibility to ensure that the Goods are suitable for the purpose to which that are intended to be used.
10.3 No representation or warranty is given as to the suitability or fitness of the Goods for any particular purpose and the Buyer shall satisfy itself in this respect and shall be totally responsible thereof.
10.4 If the Buyer has any specific requirements for the use of the Goods the Buyer must notify requirements to the Company in writing before purchasing the Goods.
10.5 If the Buyer is unsure as to the suitability of any Goods for a particular purpose it should consult the Company prior to purchase.
10.6 If the Goods are in such a state as would but for this condition entitle the Buyer to repudiate the contract and/or claim damages from the Company, the Company reserves the right to repair or replace the Goods.

11. Liability

11.1 Introduction
11.1.1 Nothing in clause 11 shall be deemed to exclude or restrict the Company's liability for death or personal injury resulting from the Company's negligence.
11.1.2 Each of the sub-clauses in Clause 11 is to be treated as separate and independent.
11.2 Exclusion
11.2.1 Clauses 11.2 only covers defects caused by faulty design, manufacture, materials or workmanship. It does not cover defects caused by abnormal use, misuse or neglect. It does not cover faulty design, manufacture materials or workmanship supplied or undertaken by the Buyer or third parties. In respect of goods not designed or manufactured by the Company, the Company only gives such guarantee or warranty to the Buyer as the Company itself receives.
11.2.2 The Company agrees that if any defect covered by Clause 11.2 is discovered during the period of three months commencing with the date of dispatch, the Company will either repair the goods at its own expense or, if it chooses to do so, replace them.
11.2.3 The Company does not bear responsibility for any defect arising or introduced by a Buyer in the course of storage or handling of the products where that Buyer acts as an agent or distributor of the Company's products. The Buyer should consult the Company if doubt exists with regard to the appropriate storage or handling requirements.
11.2.4 The Buyer cannot claim the benefit of this clause unless:
(1) he informs the Company of the relevant defect in writing within 7 working days of discovering it; And
(2) he returns the Goods to the Company at his own expense.
11.2.5 The risk of accidental loss whilst the Goods are being returned will be borne by the Buyer.
11.2.6 In consideration for receiving the benefit of this clause, the Buyer agrees that, apart from those terms set out in Clauses 9 and 10, no other terms, conditions, warranties or in nominate terms, express or implied, statutory or otherwise, shall form part of this contract.
11.3 Exclusion of Consequential Loss The Company shall not be liable for any consequential or indirect loss suffered by the Buyer whether their loss arises from breach of duty in contract or tort or in any other way (including loss arising from the Company's negligence). Non exhaustive illustrations of consequential or indirect loss would be:
- Loss of profits
- Loss of contracts
- Damage to property of the Buyer or anyone else, and personal injury to the Buyer or anyone else (except so far as such injury is attributable to the Company's negligence).

11.4 Limitation

The Company's total liability for any one claim or for the total of all claims arising from any one act or default of the Company (whether arising from the Company's negligence or otherwise) shall not exceed £1,000,000.

12. Special Packaging or Materials

Where special materials or branded packaging are required to satisfy the Buyer's order specification, it will be a condition that any surplus quantity of these items produced by the Company will, on completion of the Buyer's order, be invoiced to, and payable by, the Buyer.

13. Force Majeure

13.1 The Company shall not be liable for any failure to deliver the Goods arising from circumstances outside the Company's control.
13.2 Non-exhaustive illustrations of such circumstances would be act of God, war, riot, explosion, abnormal weather conditions, fire, flood, strikes, lockouts, Government action or regulations (UK or otherwise), delay by suppliers, accidents and shortage of materials, labour or manufacturing facilities.
13.3 Should the Company be prevented from delivering ion the above circumstances, it shall give the Buyer written notice of this fact as soon as reasonably practicable.
13.4 If the circumstances preventing delivery are still continuing three months after the Buyer receives the Company's notice, then either party may give written notice to the other cancelling the contract.
13.5 If the contract is cancelled in this way, the Company will refund any payment which the Buyer has already made on account of the price (subject to deduction of any amount the Company is entitled from the Buyer) but the Company will not be liable to compensate the Buyer for any further loss or damage caused by the failure to deliver.

14. Sales Promotion Documentation

14.1 Whilst the Company takes every precaution in the preparation of its catalogues, technical circulars, price lists and its literature, these documents are for the Buyer's general guidance only and the particulars contained therein shall not constitute representations by the Company and the Company shall not be bound thereby.
14.2 Illustrations and sizes refer to patterns as made at the time of publication. In view of continued improvements and variations in availability of materials, the right is reserved to supply Goods of similar quality which may not correspond exactly with the particulars given.

15. Notice

Any notice to be given hereunder shall be in writing and shall be deemed to have been duly given if sent or delivered to the party concerned at its address specified overleaf or such address as the party may from time to time notify in writing and shall be deemed to have been served, if sent by post, 48 hours after posting.

16. Assignment

Neither the Company nor the Buyer shall assign or transfer or purport to assign of transfer the contract or the benefits thereof to any other person without prior written consent of the other.

17. Proper Law and Jurisdiction

The contract shall be governed by and construed in accordance with the law of England.

18. Waiver

The rights and remedies of the Company under the contract shall not be diminished, waived or extinguished by the granting of any indulgence, forbearance or extension of time by the Company in asserting or exercising any such rights or remedies.

19. Headings

The headings of these conditions are for convenience only and shall have no effect on the interpretation thereof.



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