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pH Indicators, J-QUANT® Test strips

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TEST PAPERS

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and Test Papers

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² Johnson Test Papers...

The leading paper impregnation and converting specialists



Johnson Test Papers is a world leading paper impregnation and converting specialist partnering with businesses around the world. Our products are used in a wide variety of applications including, the laboratory, education, food & beverage and medical. We are known and recognised for providing leading service, reliability and high quality products.

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. With ready-to-use test systems from Johnson Test Papers, you can trust the results, as Johnson Test Papers has been manufacturing easy to use rapid tests since 1938.

Our broad range of products cover everything from simple pH testing, water analysis, production processes and measurements of special food parameters. We have also included a broad range of filter papers including glass microfibre and membrane filters as well as syringe filters and plastic labware.

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⁴ pH Indicator Strips and Papers

Effortless pH determination

Measuring pH without the use of any instruments, it is easy to use Johnson Test Papers pH indicator strips and papers.

The pH tests are suitable for environmental analysis, industrial in-process controls and within the education setting.

Advantages of Johnson Test Papers pH tests

- Intense colour development
- Precise results because of our differentiated colour graduations
- Quick, on the spot results
- Calibration and quality assurance by NIST certified pH buffer solutions

pH Indicator Papers

Our pH papers are manufactured using high quality papers which are impregnated with mixed indicator solutions, dried and then cut to size. In general our pH papers are supplied in rolls or books which are both convenient but also protect against external effects such as moisture, light and ambient gases, resulting in a prolonged shelf life.

pH Indicator Strips - non-bleeding

Our non-bleeding pH Indicator Strips are manufactured with special indicator dyes which are bound to the reagent paper. This special method of manufacturing gives certain advantages over the pH Indicator Papers; the indicators do not bleed and the indicator strips can be left in solution for a prolonged time without contaminating the test solution.

Shelf life and storage

Our indicator papers and strips can be stored for 3 years at room temperature, protected from light in a dry atmosphere. For best results, the package should be closed immediately after removing each paper or strips.

Quality Assurance

Johnson Test Papers calibrate and test all of its pH products using certified pH buffer solutions. These buffer solutions can be traced back directly to primary reference materials originating from NIST. This helps us maintain a consistently high quality for our products.



pH Indicator Strips (non-bleeding)

Simple, reliable and rapid pH measurement

pH measurement with our non-bleeding pH Indicator Strips is simple and has been providing assurance for qualified persons since 1938. The desired pH value can be tested with our simple and rapid nonbleeding pH Indicator Strips that ensure precision and quality.

Long strips for secure analysis

Confidently measure the pH value of challenging, hazardous or harmful liquids as the elongated plastic strip keeps the specimen away therefore minimising exposure.

Multiple pads for precise measurement

Accurate colour charts allow for reliable, simple and rapid measurement with their efficient design. Our non-bleeding pH Indicator Strips are available in packs that encompasses the entire pH scale from pH 0-14 and narrower pH ranges. Depending on the purpose and the measurement range, there are various different products for selection.

Precise Measurements in Weakly Buffered Solutions

There are many advantages to our non-bleeding pH Indicator Strips which are invariably unique Sample contamination is minimised and can be used again for testing as the indicator dyes do not bleed into the liquid.



Our broad range of pH strips offer a solution for every application

Ref	Product Description	pH Graduations	Presentation
140.4	Universal Indicator Strips pH 0-14	0-1-2-3-4-5-6-7-8-9-10-11-12-13-14	100 strips
103.3C	pH Indicator Strips pH 0-6.0	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
106.3C	pH Indicator Strips pH 4.0-10.0	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
109.3C	pH Indicator Strips 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	100 strips
113.3C	pH Indicator Strips 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	100 strips
121.2C	pH Indicator Strips pH 0-1.5	0-0.3-0.5-0.8-1.0-1.5	100 strips
122.2C	pH Indicator Strips pH 0-2.5	0-0.5-1.0-1.3-1.6-1.9-2.2-2.5	100 strips
114.2C	pH Indicator Strips pH 2.5-4.5	2.5-3.0-3.3-3.6-3.9-4.2-4.5	100 strips
125.2C	pH Indicator Strips pH 4.0-7.5	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
126.2C	pH Indicator Strips pH 5.0-9.0	5.0-5.5-6.0-6.5-7.0-7.5-8.0-8.5-9.0	100 strips
127.2C	pH Indicator Strips pH 6.5-10.0	6.5-6.8-7.1-7.4-7.7-7.9-8.1-8.3-8.5-8.7-9.0-9.5-10.0	100 strips
110.3C	pH Indicator Strips pH 11.0-13.0	11.0-11.5-11.8-12.1-12.3-12.5-12.8-13.0	100 strips

pH Indicator Paper

A simple and effortless method for ascertaining the pH value of solutions, Johnson Test Papers have been manufacturing pH paper using high quality media impregnated with mixed indicator dyes with decades of experience. With their varied uses, Johnson Test Papers can provide a wide range of pH papers to suit your requirement. The pH value can be ascertained in an instant with these simple to use and rapid pH papers. Our customers' confidence in our pH papers stems from demonstrable manufacturing operations and our long standing knowledge.

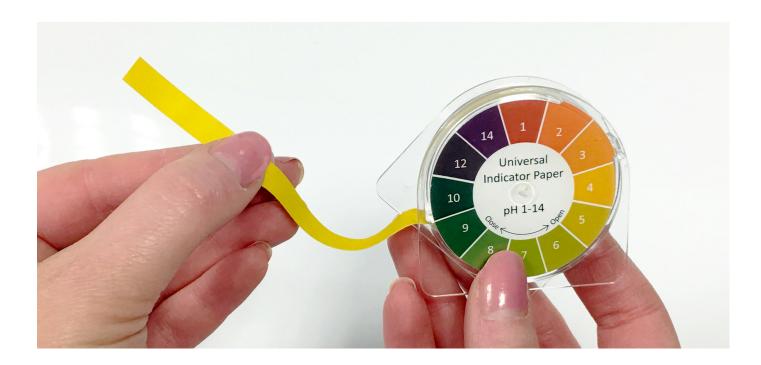
Ref	Product Description	pH Graduations	Presentation
004.1 004.5 004.5R 004.33C	Universal Indicator Paper pH 1-11	1-2-3-4-5-6-7-8-9-10-11	10 books of 20 strips 1 roll (5m x 7mm) 3 roll refill pack 4 x 25 strips per book
046.1 046.5 046.5R 046.33C	Universal Indicator Paper pH 1-14	1-2-3-4-5-6-7-8-9-10-12-14	10 books of 20 strips 1 roll (5m x 7mm) 3 roll refill pack 4 x 25 strips per book
005.1 005.5 005.33	Comparator Paper pH 1.0-3.5	1.0-1.5-2.0-2.5-3.0-3.5	10 books of 20 strips 1 roll (5m x 7mm) 200 strips per pack
006.1 006.5 006.33	Comparator Paper pH 3.6-5.1	3.6-3.9-4.2-4.5-4.8-5.1	10 books of 20 strips 1 roll (5m x 7mm) 200 strips per pack
007.1 007.5 007.33	Comparator Paper pH 5.2-6.7	5.2-5.5-5.8-6.1-6.4-6.7	10 books of 20 strips 1 roll (5m x 7mm) 200 strips per pack
008.1 008.5 008.33	Comparator Paper pH 6.8-8.3	6.8-7.1-7.4-7.7-8.0-8.3	10 books of 20 strips 1 reel (5m x 7mm) 200 strips per pack
009.1 009.5 009.33	Comparator Paper pH 8.4-10.0	8.4-8.7-9.0-9.3-9.6-10.0	10 books of 20 strips 1 roll (5m x 7mm) 200 strips per pack
022.1 022.5 022.33	Comparator Paper pH 4.0-8.0	4.0-4.5-5.0-5.5-6.0-6.5-7.0-7.5-8.0	10 books of 20 strips 1 roll (5m x 7mm) 200 strips per pack
023.1 023.5 023.33	Comparator Paper pH 4.0-5.6	4.0-4.2-4.4-4.6-4.8-5.0-5.2-5.4-5.6	10 books of 20 strips 1 roll (5m x 7mm) 200 strips per pack
044.1 044.5 044.33	Comparator Paper pH 6.2-7.8	6.2-6.4-6.6-6.8-7.0-7.2-7.4-7.6-7.8	10 books of 20 strips 1 roll (5m x 7mm) 200 strips per pack
050.5	Comparator Paper pH 0.5-5.5	0.5-1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5-5.0-5.5	1 roll (5m x 7mm)
051.5	Comparator Paper pH 3.8-5.8	<3.8-3.8-4.1-4.3-4.5-4.7-4.9-5.2-5.5-5.8->5.8	1 roll (5m x 7mm)
052.5	Comparator Paper pH 4.0-7.0	4.0-4.3-4.6-4.9-5.2-5.5-5.8-6.1-6.4-6.7-7.0	1 roll (5m x 7mm)
053.5	Comparator Paper pH 5.4-7.0	<5.4-5.4-5.7-6.0-6.2-6.4-6.7-7.0->7.0	1 roll (5m x 7mm)
054.5	Comparator Paper pH 5.5-9.0	5.5-6.0-6.5-7.0-7.5-8.0-8.5-9.0	1 roll (5m x 7mm)
055.5	Comparator Paper pH 6.4-8.0	<9.4-6.4-6.6-6.8-7.0-7.2-7.4-7.6-7.8-8.0->8.0	1 roll (5m x 7mm)
056.5	Comparator Paper pH 7.2-9.7	<7.2-7.2-7.5-7.8-8.1-8.4-8.7-9.0-9.3-9.7->9.7	1 roll (5m x 7mm)
057.5	Comparator Paper pH 8.0-10.0	8.0-8.2-8.4-8.7-9.0-9.2-9.6-10.0	1 roll (5m x 7mm)
058.5	Comparator Paper pH 9.0-13.0	9.0-9.5-10.0-10.5-11.0-11.5-12.0-12.5-13.0	1 roll (5m x 7mm)

pH Indicator Paper

Qualitative pH Paper

Johnson Test Papers offers litmus papers for the routine management of acid or alkaline reactions in industry.

These papers do not require the need for a colour chart as their purpose is to demonstrate qualitative analysis in a simple 'yes' and 'no' manner. They will not provide accurate pH measurement, but will change from one colour to another at a set pH value. These user friendly test papers are suitable for many industrial and educational applications.



Ref	Product Description	pH range	Presentation
001.1			10 books of 20 strips
001.5	Litmus Blue Paper	pH < 7 red / > 7 blue	1 roll (5m x 7mm)
001.33C			4 x 25 strips per book
002.1			10 books of 20 strips
002.5	Litmus Neutral Paper	pH < 7 red / > 7 blue	1 roll (5m x 7mm)
002.33C			4 x 25 strips per book
003.1			10 books of 20 strips
003.5	Litmus Red Paper	pH < 7 red / > 7 blue	1 roll (5m x 7mm)
003.33C			4 x 25 strips per book
010.1	Congo Red Paper	pH < 3 blue-violet / pH > 5 red-orange	10 books of 20 strips
011.1	Turmeric Paper	pH < 6.8 yellow / pH > 8.6 red	10 books of 20 strips
014.1	Clayton Yellow Paper	pH < 12.0 yellow / pH > 13.0 red	10 books of 20 strips
027.1	Brilliant Yellow Paper	pH < 6.6 yellow / pH > 8.4 red	10 books of 20 strips
029.1	Phenolphthalein Paper	pH < 8.4 white / pH > 9.6 red	10 books of 20 strips
045.1	Methyl Orange Paper	pH < 3.0 red / pH > 4.4 yellow	10 books of 20 strips

⁸ Comparator Strips

Comparator pH Strips are extremely simple to use. Robust results and maximum quality is strengthened by our ISO 9001 certification and high quality raw material. The Comparator brand consists of a product portfolio differentiated by a range of pH values and incremental steps between 0.2-0.5 pH units. These Comparator Strips are manufactured to have a unique single pad system of impregnated paper.

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

Wine and Beer pH Strips

Before fermentation, Johnson Test Papers' Wine pH test strips are used to test the pH of the juice. They can also be used to test the pH of kombucha tea and cider. These strips work within the pH range 2.8 - 4.4. The optimum pH of yeast is between 5.2 - 5.5, which falls within the measuring capacity of the narrow-range Beer pH test strip to test for beer mash.

Ref	Product Description	pH Graduations	Presentation
181.1	Wine pH Strips pH 2.8-4.4	2.8-3.2-3.6-4.0-4.4	50 strips
182.1	Beer pH Strips pH 4.6-6.2	4.6-5.0-5.4-5.8-6.2	50 strips

For professional use

Ref	Product Indication	Product Description	pH Graduations	Presentation
113.3CE	pH indicator strips, CE certified for in-vitro testing of pH in human gastric aspirate	pH Indicator Strips pH 2.0-9.0 (CE)	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
103.3CE	pH indicator strips, CE certified for in-vitro testing of pH in human gastric aspirate	pH Indicator Strips pH 0-6.0 (CE)	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

J-QUANT[®] test strips

J-QUANT® Semi Quantitative Test Strips are known for their accuracy and quality. They provide semi-quantitative results for ions, organic compounds, inorganic compounds and match the ever demanding needs of a rapid test. Laboratory costs and time can be lowered by a substantial amount given the information they provide as a firstphase test.

More than 20 products from part of the J-QUANT® range within which there may be more than one test for the same compound to cover different ranges. These extra convenient J-QUANT® test strips allow the end user to carry out quality checks and in-process determinations.

Portable and easy to handle, these 'labs on a stick' contain all the necessary reagents and consumables to be ready for use straight out of the packaging. With no calibration required, J-QUANT® test strips are beyond doubt, highly complex products that can be used anywhere and easily disposed of.

These test provide precise measurements of chemical compounds that have be calibrated with laboratory approved standards and a high accuracy colour chart.

Advantages of J-QUANT[®] test strips

- Fast and easy results
- Easy to handle for on the spot results
- Wide range of tests
- Ideal for an indication saving time and cost



Shelf life and storage

When stored cool and dry, the test strips can be used up to their expiry date printed on the pack. The vial must be closed immediately after the removal of each strip to ensure they remain protected.

Quality Assurance

Johnson Test Papers calibrate and test all of its tests using certified standard solutions. These standard solutions can be traced back directly to primary reference materials originating from NIST. This helps us maintain consistently high quality products.

¹⁰ J-QUANT[®] test strips

Ref	Product Description	Graduations	Presentation
210.1	J-QUANT [®] Ammonium 400	0 - 10 - 25 - 50 - 100 - 200 - 400 mg/L NH ⁴⁺	100 strips
212.1	J-QUANT [®] Ascorbic Acid 2000	0 - 50 - 100 - 200 - 300 - 500 - 700 - 1000 - 2000 mg/L	100 strips
214.1	J-QUANT® Carbonate Hardness	0 - 5 - 10 - 15 - 20 - 30 °d	100 strips
161.1C	J-QUANT [®] Chlorine 5	0 - 0.5 - 1 - 3 - 5 mg/L	100 strips
216.1	J-QUANT [®] Chlorine 20	0 - 0.5 - 1 - 3 - 5 - 10 - 20 mg/L	100 strips
163.1C	J-QUANT® Chlorine 300	0 - 25 - 50 - 100 - 200 - 300 mg/L	100 strips
164.1C	J-QUANT® Chlorine 1000	0 - 50 - 100 - 250 - 500 - 1000 mg/L	100 strips
250.1	J-QUANT® Copper 300	0-10-30-100-300 mg/L	100 strips
173.5C	J-QUANT® Fluoride 100	0 - 10 - 25 - 50 - 100 mg/L	100 strips
230.1	J-QUANT® Glucose 500	0 - 10 - 25 - 50 - 100 - 250 - 500 mg/L	100 strips
238.1	J-QUANT® Glucose 2000	0 - 100 - 250 - 500 - 1000 - 2000 mg/dL	100 strips
236.1	J-QUANT® lodine 225	0 - 50 - 75 - 150 - 225 mg/L	100 strips
248.1	J-QUANT® Iron 500	0-3-10-25-50-100-250-500 mg/L	100 strips
176.5C	J-QUANT® Nitrate 500	0 - 10 - 25 - 50 - 250 - 500 mg/L	100 strips
175.5C	J-QUANT® Nitrite 25	0 - 0.5 - 1 - 5 - 10 - 25 mg/L	100 strips
218.1	J-QUANT® Nitrite 80	0 - 2 - 5 - 10 - 20 - 40 - 80 mg/L	100 strips
242.1	J-QUANT® Nitrate/Nitrite 500/25	0-10-25-50-100-250-500 mg/L NO ₃ + 0-0.5-1-5-10-25 mg/L NO ₂ +	100 strips
254.1	J-QUANT® Nitrate/Nitrite 500/80	0-10-25-50-100-250-500 mg/L NO ₃ + 0-2-5-10-20-40-80 mg/L NO ₂ +	100 strips
167.5C	J-QUANT® Peracetic Acid 50	0 - 5 - 10 - 20 - 30 - 50 mg/L	100 strips
168.5C	J-QUANT® Peracetic Acid 500	0 - 100 - 150 - 200 - 250 - 300 - 400 - 500 mg/L	100 strips
228.1	J-QUANT® Peracetic Acid 2000	0 - 500 - 1000 - 1500 - 2000 mg/L	100 strips
220.1	J-QUANT® Peroxide 25	0 - 0.5 - 2 - 5 - 10 - 25 mg/L	100 strips
165.5C	J-QUANT® Peroxide 100	0 - 1 - 3 - 10 - 30 - 100 mg/L	100 strips
222.1	J-QUANT® Peroxide 1000	0 - 100 - 200 - 400 - 600 - 800 - 1000 mg/L	100 strips
224.1	J-QUANT® Phosphate 500	0 - 3 - 10 - 25 - 50 - 100 - 250 - 500 mg/L	100 strips
160.5	J-QUANT® QAC 400R	0 - 100 - 200 - 300 - 400 mg/L Benzalkonium chloride	5m roll
160.1	J-QUANT [®] QAC 400	0 - 100 - 200 - 300 - 400 mg/L Benzalkonium chloride	100 strips
160.2	J-QUANT® QAC 25-1000	0 - 25 - 50 - 100 - 250 - 500 - 1000 mg/L Benzalkonium chloride	100 strips
160.3	J-QUANT® QAC 200-1000	0 - 200 - 400 - 600 - 800 - 1000 mg/L Benzalkonium chloride	100 strips
012.1	J-QUANT® Silver 10	0 - 1 - 1.75 - 2.75 - 3.5 - 5 - 7 - 10 g/L	100 strips
172.5C	J-QUANT® Sulphite 500	0 - 10 - 25 - 50 - 100 - 250 - 500 mg/L	100 strips
020.5	J-QUANT [®] Total Chlorine 200	0 - 10 - 25 - 50 - 100 - 200 mg/L	5m roll
185.1C	J-QUANT® Water Hardness 500	0 - 50 - 125 - 250 - 500 mg/L CaCO ₃	100 strips
226.1	J-QUANT® Water Hardness 21	3 - 4 - 7 - 14 - 21 °d CaCO ₃	100 strips
240.1	J-QUANT® Water Hardness 25	0 - 5 - 10 - 15 - 20 - 25 °d CaCO ₃	100 strips
232.1	Swimming Pool Test 5 in 1		100 strips
234.1	Swimming Pool Test 3 in 1		100 strips

Agriculture	Aquaristics	Beverages	Biotechnology	Boiler water, cooling water	Construction material	Disinfection control	Drainage water	Drinking water	Electroplating	Environment	Food	Groundwater	Milk, diary products	Mineral water	Seawater	Swimming pool	Wastewater	
																		Product Description
																		J-QUANT® Ammonium 400
																		J-QUANT [®] Ascorbic Acid 2000
																		J-QUANT [®] Carbonate Hardness
																		J-QUANT [®] Chlorine 5
																		J-QUANT® Chlorine 20
																		J-QUANT® Chlorine 300
																		J-QUANT® Chlorine 1000
																		J-QUANT [®] Copper 300
																		J-QUANT® Fluoride 100
																		J-QUANT® Glucose 500
																		J-QUANT® Glucose 2000
																		J-QUANT [®] lodine 225
																		J-QUANT [®] Iron 500
																		J-QUANT® Nitrate 500
																		J-QUANT® Nitrite 25
																		J-QUANT® Nitrite 80
																		J-QUANT® Nitrate/Nitrite 500/25
																		J-QUANT® Nitrate/Nitrite 500/80
																		J-QUANT® Peracetic Acid 50
																		J-QUANT® Peracetic Acid 500
																		J-QUANT® Peracetic Acid 2000
																		J-QUANT® Peroxide 25
																		J-QUANT [®] Peroxide 100
																		J-QUANT® Peroxide 1000
																		J-QUANT® Phosphate 500
																		J-QUANT [®] QAC 400R
																		J-QUANT® QAC 400
																		J-QUANT® QAC 25-1000
																		J-QUANT [®] QAC 200-1000
																		J-QUANT [®] Silver 10
																		J-QUANT [®] Sulphite 500
																		J-QUANT [®] Total Chlorine 200
																		J-QUANT [®] Water Hardness 500
																		J-QUANT [®] Water Hardness 21
																		J-QUANT [®] Water Hardness 25
																		Swimming Pool Test 5 in 1
																		Swimming Pool Test 3 in 1

J-QUANT[®] Ammonium

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

Ammonium can result from the biological delay of plant and animal matter. High concentrations can be found in farming areas where fertilisers are regularly used. Ammonium itself is relatively harmless, however depending on the pH, part of or all of the ammonium is converted to NH_3 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.

Ref	Product Description	Indication Range	Colour Change	Presentation
210.1	J-QUANT [®] Ammonium 400	0-10-25-50-100-200-400 mg/L NH ₄ +	yellow to brown	100 strips

J-QUANT[®] Ascorbic Acid

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.

Ref	Product Description	Indication Range	Colour Change	Presentation
212.1	J-QUANT® Ascorbic Acid 2000	0-50-100-200-300-500-700-1000 mg/L AA	yellow to green/blue	100 strips

J-QUANT[®] Carbonate Hardness

This test strip is for the fast and reliable determination of alkalinity/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.

Ref	Product Description	Indication Range	Colour Change	Presentation
214.1	J-QUANT® Carbonate Hardness	0-5-10-15-20-30 ^o d	yellow to blue	100 strips



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J-QUANT[®] Chlorine

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

Chlorine is widely used for disinfection of swimming pools, water mains and 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 while the higher level are ideal for testing the concentrate mix.

Ref	Product Description	Indication Range	Colour Change	Presentation
161.1C	J-QUANT [®] Chlorine 5	0-0.5-1-3-5 mg/L Cl ₂	white to pink/purple	100 strips
216.1	J-QUANT® Chlorine 20	0-0.5-1-3-5-10-20 mg/L Cl ₂	white to pink/purple	100 strips
163.1C	J-QUANT® Chlorine 300	0-25-50-100-200-300 mg/L Cl ₂	white to yellow/brown	100 strips
164.1C	J-QUANT [®] Chlorine 1000	0-50-100-250-500-1000 mg/L Cl ₂	white to yellow	100 strips

J-QUANT[®] Copper

This test strip is for the rapid and reliable determination of copper in solutions.

J-QUANT Copper is used for the quick and easy monitoring of electroplating solutions, waste water, tap water and in many other applications.

Ref	Product Description	Indication Range	Colour Change	Presentation
250.1	J-QUANT® Copper 300	0-10-30-100-300 mg/L Cu⁺	white to purple	100 strips

J-QUANT® Fluoride

This test strip is used for monitoring fluoride levels in drinking water as excessive fluoride may be harmful. The solution to be tested must be at a pH of 0.5 in order for this test to be accurate. This pH adjustment can be accomplished using concentrated hydrochloric acid (muriatic acid) to acidify the test solution, and measured with the pH 0-1.5 test strip.

Ref	Product Description	Indication Range	Colour Change	Presentation
173.5C	J-QUANT® Fluoride 100	0-10-25-50-100 mg/L F⁻	red to yellow	100 strips

J-QUANT® Glucose

This test allows the quick and easy determination of glucose in solutions.

Glucose is an important part of many foods and beverages and hence it's determination is important in the respective industries. For example, the glucose content in potatoes is an important quality criterion during storage, as the glucose content increases during long storage or at high temperatures, leading to loss of quality, discolorations and unpleasent taste.

Ref	Product Description	Indication Range	Colour Change	Presentation
230.1	J-QUANT® Glucose 500	0-10-25-50-100-250-500 mg/L Glucose	white to brown	100 strips
238.1	J-QUANT® Glucose 2000	0-100-250-500-1000-2000 mg/L Glucose	blue to brown	100 strips

J-QUANT® lodine

This test strip is for testing concentrations of disinfection solution containing lodine. These are mainly used for sanitising utensils and dishware in the restaurant trade.

Ref	Product Description	Indication Range	Colour Change	Presentation
236.1	J-QUANT® lodine 225	0-50-75-150-225 mg/L l ₂	white to purple	100 strips

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J-QUANT® Iron

This test allows the quick and easy determination of total iron in solutions.

Iron is frequently used for water pipes and vessels in industrial applications. Dissolved iron in process water is an important indicator for the level of corrosion. In drinking water, dissolved iron is not desirable as it leads to a brown colour and a foul taste.

J-QUANT[®] Iron test strips are the ideal solution to test for iron in water quickly and accurately.



J-QUANT® Nitrate

These test strips are for the rapid and reliable determination of nitrate and nitrite in solutions.

Nitrite is an undesired byproduct in cooling lubricants and are therefore regularly tested for nitrites. In natural and drinking water, nitrite can lead to infant mortality and dead aquatic life. The EPA primary drinking water standard is 1 mg/l.

Nitrate is also a byproduct of biological decay from plant and animal matter. High concentrations can be found in rural, farming areas where fertilisers are regularly used. Often different foods need to be tested for their nitrate content. Nitrate is often found in preservatives or present in food due to over-fertilisation. Excessive nitrate concentrations in food can have adverse effects on food quality and consumer health. Regular nitrate testing in the food industry is therefore very important. Additionally, farmers use this test to control the nitrogen content in soil to estimate the amount of fertiliser needed. In ponds and aquariums nitrate is often tested instead of ammonium to control the water quality.

Ref	Product Description	Indication Range	Colour Change	Presentation
176.5C	J-QUANT® Nitrate 500	0-10-25-50-250-500 mg/L NO ₃ -	white to pink	100 strips
242.1	J-QUANT® Nitrate/Nitrite 500/25	0-10-25-50-100-250-500 mg/L NO ₃ - 0-0.5-1-5-10-25 mg/L NO ₂ -	white to pink	100 strips
254.1	J-QUANT® Nitrate/Nitrite 500/80	0-10-25-50-100-250-500 mg/L NO ₃ - 0-2-5-10-20-40-80 mg/L NO ₂ -	white to pink	100 strips

J-QUANT[®] Nitrite

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

This test is also available as a combination product with nitrate. Please see J-QUANT Nitrate above.

Ref	Product Description	Indication Range	Colour Change	Presentation
175.5C	J-QUANT [®] Nitrite 25	0-0.5-1-5-10-25 mg/L NO ₂ -	white to pink	100 strips
218.1	J-QUANT [®] Nitrite 80	0-2-5-10-20-40-80 mg/L NO ₂ -	white to pink	100 strips

J-QUANT[®] Peracetic Acid

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

Peracetic acid is a powerful oxidiser and often used as a disinfectant. It is frequently used to disinfect bottles and packages in the beverage industry. After disinfection, packages are rinsed to wash out any remaining disinfectant. Along the same lines, peracetic acid is used in dialysis centres to clean dialysis machines. J-QUANT[®] Peracetic Acid Test Strips can check quickly and easily, if the disinfectant has been prepared correctly and removed completely.

Ref	Product Description	Indication Range	Colour Change	Presentation
167.5C	J-QUANT® Peracetic Acid 50	0-5-10-20-30-50 mg/L PAA	white to blue	100 strips
168.5C	J-QUANT® Peracetic Acid 500	0-100-150-200-250-300-400-500 mg/L PAA	white to brown	100 strips
228.1	J-QUANT [®] Peracetic Acid 2000	0-500-1000-1500-2000 mg/L PAA	white to brown	100 strips

J-QUANT[®] Peroxide

This peroxide test strip is ideal to test low levels of peroxide in solutions.

Hydrogen Peroxide (H_2O_2) is one of the most powerful oxidisers known. It's disinfectant capabilities are higher than chlorine (Cl_2) or chlorine dioxide (ClO_2) . It is used in many industries as a disinfectant, for example in the food and dairy industry. The peroxide test strips are used to test for residual peroxide after production equipment has been disinfected with peroxide containing agents. Additionally, the final product is often tested for peroxide with test strips as well, because many packages are disinfected with peroxide prior to filling.

Ref	Product Description	Indication Range	Colour Change	Presentation
220.1	J-QUANT® Peroxide 25	0-0.5-2-5-10-25 mg/L $\rm H_2O_2$	white to blue	100 strips
165.5C	J-QUANT® Peroxide 100	0-1-3-10-30-100 mg/L H ₂ O ₂	white to blue	100 strips
222.1	J-QUANT [®] Peroxide 1000	0-100-200-400-600-800-1000 mg/L H ₂ O ₂	white to brown	100 strips

J-QUANT[®] Phosphate

These test strips allows the quick and easy testing of phosphate in solutions.

In surface water, the presence of high phosphate concentrations may indicate domestic waste discharge, fertiliser runoff 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 eutrophication of rivers and lakes resulting finally in the death of aquatic life. J-QUANT[®] Phosphate may also be used In the maintaining of cooling or heating systems for testing corrosion inhibitor.

R	lef	Product Description	Indication Range	Colour Change	Presentation
2	24.1	J-QUANT® Phosphate 500	0-3-10-25-50-100-250-500 mg/L	white to dark blue	100 strips

J-QUANT® QAC

These test strips are for the rapid and reliable determination of quaternary ammonium compounds (QAC) in solutions.

QAC based disinfectants are frequently used for the disinfection of medical devices, surfaces and closed cooling cycles. J-QUANT[®] QAC Test Strips can be used to indicate if the concentration of the disinfectant is sufficient, ensuring an optimal disinfection process. The QAC test strips are calibrated for benzalkonium chloride. The instructions contain conversion factors for many other quaternary ammonium compounds.

Ref	Product Description	Indication Range	Colour Change	Presentation
160.5	J-QUANT® QAC 400R	0-100-200-300-400 mg/L BZK	yellow to blue	5m roll
160.1	J-QUANT [®] QAC 400R	0-100-200-300-400 mg/L BZK	yellow to blue	100 strips
160.2	J-QUANT® QAC 25-1000	0-25-50-100-250-500-1000 mg/L BZK	yellow to blue	100 strips
160.3	J-QUANT [®] QAC 200-1000	0-200-400-600-800-1000 mg/L BZK	yellow to blue	100 strips



J-QUANT® Silver

This test allows the quick and easy determination of silver in solutions.

Silver is a universally known and important metal, which is used in many applications. For example, silver plays an important role in the final stages of photo and film development known as the fixing process. Here, excess silver halides are washed from the photographic layer. To ensure a well functioning fixing bath, its silver content needs to be monitored regularly.

Ref	Product Description	Indication Range	Colour Change	Presentation
012.1	J-QUANT [®] Silver 10	0-1-1.75-2.75-3.5-5-7-10 g/L Ag+	yellow to brown	10 books

J-QUANT[®] Sulphite

This test strip is for the rapid and reliable determination of sulphite in solutions.

In process and boiler water, sulfite is used as an oxygen scavenger. To avoid over treatment, the concentration needs to be controlled, regularly. These tests are also used to control the sulfite concentration in foodstuff treated with sulfur compounds to increase the shelf-life. Monitoring sulphite in wine production is also important, to control the production and quality of the wine.

Ref	Product Description	Indication Range	Colour Change	Presentation
172.5C	J-QUANT® Sulphite 500	0-10-25-50-100-250-500 mg/L SO ₃ ²⁻	white to red	100 strips

J-QUANT[®] Total Chlorine

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

Ref	Product Description	Indication Range	Colour Change	Presentation
020.5	J-QUANT® Total Chlorine 200	0-10-25-50-100-200 mg/L Cl ₂	white to purple	5m roll

J-QUANT[®] Water Hardness

These test strips are for the quick and easy determination of water hardness.

The water hardness depends mainly on the amount of calcium and magnesium salts within the water. The total sum of these salts determines the actual water hardness. Water is often simply classified as "soft" or "hard" water and generally, the following values apply to these terms:

below 50 mg/L CaCO₃- very soft water 50 - 120 mg/L CaCO₃- soft water 120 - 240 mg/L CaCO₃ - medium hard water 240 - 360 mg/L CaCO₃ - hard water above 360 mg/L CaCO₃- very hard water

Water hardness plays an important role in everyday life and a wide variety of industries and applications. Hard water can even adversely affect taste and appearance of food. Hard water inhibits the lathering of soap, so more detergent has to be used in hard water in order to achieve the same cleaning results as in soft water. Additionally, hard water may cause calcification and can thus damage machinery, appliances, pipes or heating units. In many industries, water hardness is an important parameter in process control and has to be monitored constantly. Some examples of industries include the textile industry, dyeing factories, large scale laundries, water works, fish-farming and aquaculture. J-QUANT[®] Water Hardness test strips are the ideal choice to quickly, easily and reliably measure the level of water hardness.

Ref	Product Description	Indication Range	Colour Change	Presentation
185.1C	J-QUANT® Water Hardness 500	0-50-125-250-500 mg/L CaCO ₃	yellow to maroon	100 strips
226.1	J-QUANT® Water Hardness 21	3-4-7-14-21 °d CaCO ₃	yellow to maroon	100 strips
240.1	J-QUANT® Water Hardness 25	0-5-10-15-20-25 °d CaCO ₃	green to red	100 strips

Swimming Pool Test

This test strip is for the rapid and reliable determination of the water quality in pools and aquariums. The easy to use procedure provides important information on the total hardness, free chlorine, total chlorine, alkalinity and pH. The water quality can be measured almost instantly thus assisting with any adjustments required for the pool or aquarium.

Ref	Product Description	Indication Range	Colour Change	Presentation
232.1	Swimming Pool Test 5 in 1			50 strips
	Total Hardness	0-100-250-500-1000 mg/L CaCO ₃	yellow to maroon	
	Free Chlorine	0-0.5-1-3-5-10 mg/L Cl ₂	white to purple	
	Total Chlorine	0-1-3-5-10 mg/L Cl ₂	white to purple	
	Alkalinity	0-80-120-180-240 mg/L CaCO ₃	yellow to green	
	рН	pH 6.4-6.8-7.2-7.6-8.4	yellow to blue	
234.1	Swimming Pool Test 3 in 1			50 strips
	Free Chlorine	0-0.5-1-3-5-10 mg/L Cl ₂	white to purple	
	Alkalinity	0-80-120-180-240 mg/L CaCO ₃	yellow to green	
	рН	pH 6.4-6.8-7.2-7.6-8.4	yellow to blue	

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Qualitative Test Papers

Johnson Test Papers' range of qualitative tests are ideal for the qualitative determination of specific ions and chemical compounds. If merely the presence of a compound is required without the detail of the concentration, then these tests will perform a single colour if that compound is exceeds the detection amount.

These tests are highly efficient, require minimal effort and can provide definitive qualitative answer if a sample contains compounds of interest. Some of these tests are for specific use only. Our tests and high quality, long life and are available for a comprehensive range of parameters as shown below.



Test Papers

Our test papers are available in bulk or in various lengths and widths or even packaged to your own needs.

Ref	Product Description	For the detection of	Limit of Sensitivity	Presentation
033.10	Backing Paper	-	-	500 strips
012.10	Cadmium Sulphide Paper	Gold plating efficiency	-	500 strips
015.1	Cobalt Chloride Paper	Humidity in air	2% RH	10 books of 20 strips
016.95	Humidity Indicator Paper	Humidity in air 45%-55% (Relative)	45-55% RH	100 strips
026.1	Moisture Indicator Paper (Cobalt chloride free)	Humidity in air	2% RH	10 books of 20 strips
017.1	Lead Acetate Paper	Hydrogen Sulphide	1 drop of solution containing	10 books of 20 strips
017.5			5 mg/L sulfide (S ²⁻)	5m roll
021.9	Mercuric Chloride Paper	Arsenic (toxic)	0.5 µg As	100 strips
013.10	Nioxime Paper	Porosity of gold, palladium and rhodium	-	500 strips
018.1	Starch Paper	lodine	-	10 books of 20 strips
018.5				5m roll
019.1	Starch & Potassium Iodide Paper	Oxidising Agents	1 mg/L NO ₂ - / 1 mg/L Cl ¹	10 books of 20 strips
019.5				5m roll
025.10	Water Coolant (EC64) Paper	pH of Anti-Freeze	-	100 strips
036.10	Water Finder Paper	Water in Oil	1-2 mm water layer	200 strips

¹⁸ Service

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 represent those most commonly used in the scientific market 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

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.

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 form 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.

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.



Standard Terms & Conditions

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

All orders are accepted under these Terms & Conditions alone

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. 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. 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

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 of insolvent or enters into any arrangement with its creditors of commits a material or serious breach of this Agreement (and in the care of such a breach being areactivele in the target of the source of previous or the order of the care of such a breach being areactivele in the target of the source of the order of a source of the order of the source of the order of the source of the order of the or 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 Buver's order. 6.2 The Company shall be responsible for the delivery of Goods to the delivery address, but the cost of

as the company shall be explorate may be charge to the Buyer.
 as the delivery is not of the essence.
 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

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 ordeal 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

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 interfaced and the company to the Buyer and of the company.

7.4.2 the Godds shall be kept septide and distinct informal other property of the dyne and or 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 if the Buyer's power of sale and use shall automatically cease if the Buyer has a petition presented for its winding-up of herwise than for the purposes of a bona fide doubt 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 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 possesion 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 appropriated 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

 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

7.2 There is the doubt call the examined in the callest store of source other hole 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 approximate raphage any used to damage it to any it is account if is account by the do to but of theory in a but provided 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.

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

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

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 desian, manufacture, materials or 11.2.1 Clouses 11.2 only covers defects caused by tauity 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 iself receives. II.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 the use near the super company will either repair the goods at the user near the super content of the super

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

it: And

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 fort or in any other way (including loss arising from the Company's negligence). Non exhaustive illustrations of consequential or indirect loss would be:

of indured 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 nay surplus auantity of these items produced by the Company will, on completion of the Buver's order, be invoiced to, and payable by, the Buver.

Force Majeure
 The Company shall not be liable for any failure to deliver the Goods arising from circumstances outside the Company's control.
 Non-exhaustive illustrations of such circumstances would be act of God, war, riot, explosion, abnormal

13.2 Non-exhaustive illustrations of such circumstances would be act of God, war, riot, explosion, abnormal weather conditions, file, flood, strikes, lockauts, 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 withen 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 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.

LA2 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

No 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. Headinas

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

hnson TEST PAPERS

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