

# MQuant® Test Strips

Rapid visual analysis

# Just a quick dip

## What is the quality of your milk?

### Detect peroxidase activity in milk

#### The Application

Milk pasteurization is the process of gently heating milk in order to inactivate or destroy the enzymes and microorganisms that contribute to spoilage or risk of disease. The enzyme lactoperoxidase (POD) is naturally present in milk and is inactivated if heated to temperatures higher than 85 °C. Its activity can be used to check that milk has not been heated too harshly, and therefore that pasteurization was performed correctly. For dairies, a yes/no statement in terms of POD is usually sufficient.

#### Our Solution: MQuant® Peroxidase Test strips

With the qualitative MQuant® Peroxidase Test strips, you can now determine POD in your milk sample much more quickly than traditional photometry with comparable reliability to the photometric reference method (DIN 10483-1). The simplicity of the method allows for it to be performed directly at the sampling site, and makes it more cost-effective because no additional equipment is required.

#### Benefits

- Simple and fast determination of peroxidase activity
- Reliable
- Flexible – can be used on-site
- Low cost
- Easy evaluation with a color scale and no additional instrumentation

Learn more at: [VWR® Selector](#)



## MQuant® Test Strips

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# MQuant® Test Strips

Rapid visual analysis

## Test strips

Highly reliable and portable, MQuant® test strips are designed for semi-quantitative determination of ions and other compounds. These versatile strips can be used in concentration ranges from <1 mg/L up to the g/L range. The test strips save you considerable time and costs during analyses, quality checks, and in-process controls. The PET film backing material and the low reagent content also make the test strips easy to dispose of.



## What is the glucose content of your food?

### Semi-quantitative glucose measurement

#### The Application

Glucose is an important parameter in many foods and beverages, and is regularly tested in raw materials and final products. Traditional glucose analysis involves time-consuming enzymatic determination in laboratories.

#### Our Solution: MQuant® Glucose Test strips

MQuant® Glucose Test strips allow fast, cost-effective analysis anywhere. They deliver reliable semi-quantitative results, and are ideal for quick on-the-spot screening of samples when there is no time for lab analysis.

#### Benefits

- Pocket-sized tests for on-site or laboratory use
- Simple analysis with pictogram instructions on label
- Fast, accurate results in minutes
- Cost-effective
- Easy disposal

**Fast results,  
easy usage,  
safe disposal**

**Brilliant  
color scales  
for exact  
results**



**Many  
Measuring  
ranges  
available**

## Further MQuant® applications

### Check the quality of frying oils

Deep-frying causes oils and fats to decompose over time, producing free fatty acids. When these acids exceed an acceptable limit, they affect the quality of fried food. With MQuant® Free Fatty Acids test strips, you can easily monitor the quality of your oil and determine the right time for a change.

**MQuant® Free Fatty Acids | Cat. No. 1.17046.0001**

### Ensure safe disinfections

Disinfection is critical in many different sectors such as food production, hospitals, biotech, and pharmaceutical. It is necessary to determine both that the correct concentration of a given disinfectant is used, and that residues do not remain when the process is complete to not be passed on to the final product. MQuant® test strips help you monitor these steps of cleaning by checking concentrations of disinfectants including chlorine, formaldehyde, peracetic acid, peroxide and quaternary ammonium compounds.



# MQuant® Test Strips

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# it's that simple!



## 1 Sample preparation

MQuant® test strips tolerate a range of interferences and most can be used without any sample pre-treatment. For challenging samples, we offer special reagents and a range of application notes for your convenience.

## 2 Testing



Remove one MQuant® test strip from the protective tube.



Dip strip into the test solution to wet reaction zones and remove excess liquid.



After the specified reaction time (maximum one minute), compare the color of the reaction zone with the color scale printed on the tube label to determine the concentration.

## 3 Disposal

MQuant® test strips can be safely and easily disposed of with regular waste. *Take note of any regional regulations to dispose of/recycle the aluminium tube and other packaging material.*

### Shelf-life and storage

When stored in a cool and dry area (refrigeration is necessary in some cases), test strips can be used for up to three years (details provided on the package). The tube must be closed immediately after removal of each strip to ensure the remaining test strips are protected from moisture and air.

### Quality assurance

We check and calibrate all MQuant® tests and comparison colors using certified standard solutions. These solutions can be traced directly to primary reference materials from NIST and PTB.



## Don't guess, measure!

Accurate chemical analyses and digital documentation with a NEW smartphone test strip reader

### The Application

Quick and easy testing for laboratory and in-process control of water, food, and beverage samples without compromising accuracy and reproducibility.

### Our Solution: The MQuant® StripScan App

Digital readouts of pH and chemical analytes are now at your fingertips with the MQuant® StripScan app. A camera readout of MQuant® test strips on a reference card provides instant results on your smartphone. You can synchronize your data to the StripScan web platform to compare, graph, and share your results.

### Benefits

- Get reliable results faster
- Acquire and manage your data digitally
- Ensure traceability and allow collaboration

pH Reference Card | Cat. No. 1.03736.0001

Nitrate Reference Card | Cat. No. 1.03733.0001

Download free-of-charge from the App Store or Google Play  
[mquant-stripscan.com/login](https://mquant-stripscan.com/login)



# MQuant® Test Strips

## Rapid visual analysis

### MQuant® Test Strips Parameter A-Z

	Parameter	Graduation	No. of tests	Cat. No.	Method	Type
<b>A</b>	Aluminium Test	10–25–50–100–250 mg/L Al	100	1.10015.0001	Aurintricarboxylic acid	Reagent, incl.
	Ammonium Test	10–30–60–100–200–400 mg/L NH <sub>4</sub>	100	1.10024.0001	Neßler	Reagent, incl.
	Arsenic Test	0.005–0.010–0.025–0.05–0.10–0.25–0.5 mg/L As	100	1.17927.0001	modified Gutzeit test	Reagent, incl.
	Arsenic Test	0.02–0.05–0.1–0.2–0.5 mg/L As 0.1–0.5–1.0–1.7–3.0 mg/L As	100	1.17917.0001	modified Gutzeit test	Reagent, incl.
	Ascorbic Acid Test	50–100–200–300–500–700–1,000–2,000 mg/L ascorbic acid	100	1.10023.0001	Phosphomolybdenum blue	
<b>B</b>	Blank strip		100	1.11860.0001		
<b>C</b>	Calcium Test	10–25–50–100 mg/L Ca	60	1.10083.0001	Glyoxal-bis-hydroxyanil	Reagent, incl.
	Carbonate Hardness Test	5–10–15–20–30 °e	100	1.10648.0001	Mixed indicator	
	Chloride Test	500–1,000–1,500–2,000–≥3,000 mg/L Cl	100	1.10079.0001	Silver chromate	
	Chlorine Test (free chlorine)	0.5–1–2–5–10–20 mg/L Cl <sub>2</sub>	75	1.17925.0001	Redox reaction	
	Chlorine Test (free chlorine)	25–50–100–200–500 mg/L Cl <sub>2</sub>	100	1.17924.0001	Redox reaction	
	Chromate Test	3–10–30–100 mg/L CrO <sub>4</sub>	100	1.10012.0001	Diphenylcarbazide	Reagent, incl.
	Cobalt Test	10–30–100–300–1,000 mg/L Co	100	1.10002.0001	Rhodanide	
	Copper Test	10–30–100–300 mg/L Cu	100	1.10003.0001	2,2'-Biquinoline	
	Cyanide Test	1–3–10–30 mg/L CN	100	1.10044.0001	König reaction	Reagent, incl.
	<b>F</b>	Formaldehyde Test	10–20–40–60–100 mg/L HCHO	100	1.10036.0001	Triazole
Free Fatty Acids		0.5–1.0–2.0–3.0 mg/g KOH	100	1.17046.0001	pH indicator	
<b>G</b>	Glucose Test	10–25–50–100–250–500 mg/L Glucose	50	1.17866.0001	Enzymatic reaction	
<b>I</b>	Iron Test	3–10–25–50–100–250–500 mg/L Fe(II)	100	1.10004.0001	2,2'-Bipyridine	
<b>L</b>	Lead Test	20–40–100–200–500 mg/L Pb	100	1.10077.0001	Rhodizonic acid	Reagent, incl.
<b>M</b>	Manganese Test	2–5–20–50–100 mg/L Mn	100	1.10080.0001	Oxidation/Redox indicator	Reagent, incl.
	Molybdenum Test	5–20–50–100–250 mg/L Mo	100	1.10049.0001	Toluene-3,4-dithiol	Reagent, incl.
<b>N</b>	Nickel Test	10–25–100–250–500 mg/L Ni	100	1.10006.0001	Dimethylglyoxime	
	Nitrate Test	10–25–50–100–250–500 mg/L NO <sub>3</sub>	100	1.10020.0001	modified Griess' reaction	
	Nitrate Test	10–25–50–100–250–500 mg/L NO <sub>3</sub>	25	1.10020.0002	modified Griess' reaction	
	Nitrate Test	10–25–50–100–250–500 mg/L NO <sub>3</sub>	1,000	1.10092.0021	modified Griess' reaction	Individually sealed
	Nitrite Test	0.5–1–2–5–10 mg/L NO <sub>2</sub>	75	1.10057.0001	Griess' reaction	
	Nitrite Test	2–5–10–20–40–80 mg/L NO <sub>2</sub>	100	1.10007.0001	Griess' reaction	
	Nitrite Test	2–5–10–20–40–80 mg/L NO <sub>2</sub>	25	1.10007.0002	Griess' reaction	
	Nitrite Test	0.1–0.3–0.6–1–2–3 g/L NO <sub>2</sub>	100	1.10022.0001	Griess' reaction	

	Beer processing	Food testing	Juices	Milk products	Mineral water	Soft drinks	Aquaculture	Boiler water, cooling water	Drinking water	Ground-water, surface water	Industrial water	Process water	Seawater	Swimming pools	Wastewater	Agriculture	Disinfection control	Electro-plating	
	Food & Beverages						Water										Others		
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	Parameter	Graduation	No. of tests	Cat. No.	Method	Type
<b>P</b>	Peracetic Acid Test	5–10–20–30–50 mg/L Peracetic acid	100	1.10084.0001	Redox reaction	
	Peracetic Acid Test	20–40–80–120–160 mg/L Peracetic acid	100	1.17976.0001	Redox reaction	
	Peracetic Acid Test	100–150–200–250–300–400–500 mg/L Peracetic acid	100	1.10001.0001	Redox reaction	
	Peracetic Acid Test	500–1,000–1,500–2,000 mg/L Peracetic acid	100	1.17922.0001	Redox reaction	
	Peroxidase Test	yes/no result	100	1.17828.0001	Enzymatic reaction	
	Peroxide Test	0.5–2–5–10–25 mg/L H <sub>2</sub> O <sub>2</sub>	100	1.10011.0001	Enzymatic reaction	
	Peroxide Test	0.5–2–5–10–25 mg/L H <sub>2</sub> O <sub>2</sub>	25	1.10011.0002	Enzymatic reaction	
	Peroxide Test	1–3–10–30–100 mg/L H <sub>2</sub> O <sub>2</sub>	100	1.10081.0001	Enzymatic reaction	
	Peroxide Test	100–200–400–600–800–1,000 mg/L H <sub>2</sub> O <sub>2</sub>	100	1.10337.0001	Enzymatic reaction	
	Phosphate Test	10–25–50–100–250–500 mg/L PO <sub>4</sub>	100	1.10428.0001	Molybdate ion	Reagent, incl.
Potassium Test	250–450–700–1,000–1,500 mg/L K	100	1.17985.0001	Dipicrylamine	Reagent, incl.	
<b>Q</b>	Quaternary Ammonium Compounds	10–25–50–100–250–500 mg/L Benzalkonium chloride	100	1.17920.0001	Indicator	
<b>S</b>	Sulfate Test	<200->400->800->1200->1600 mg/L SO <sub>4</sub>	100	1.10019.0001	Ba-thorin complex	
	Sulfite Test	10–40–80–180–400 mg/L SO <sub>3</sub>	100	1.10013.0001	Nitroprusside/ Zn-hexacyanoferrate	
<b>T</b>	Tin Test	10–25–50–100–200 mg/L Sn	50	1.10028.0001	Toluene-3,4-dithiol	Reagent, incl.
	Total Hardness Test	<4->5->9->18->26 °e	100	1.10025.0001	EDTA	
	Total Hardness Test	<4->5->9->18->26 °e	1,000	1.10032.0001	EDTA	Individually sealed
	Total Hardness Test	>6->13->19->25->31 °e	100	1.10046.0001	EDTA	
	Total Hardness Test	>6->13->19->25->31 °e	25,000	1.10047.0013	EDTA	Individually sealed
<b>Z</b>	Zinc Test	0–4–10–20–50 mg/L Zn	100	1.17953.0001	Dithizone	

## Your brand – Merck quality

Want to add your branding to our test strips or papers for pH or chemical parameters?

Choose from the following options:

- **Individually-sealed and branded test strips**  
Ideal for inserting in books, magazines, and brochures, or for adhering to products.
- **Branded tubes with either our catalog items or customized strips/papers**  
Provide your customers with consistent, high-quality Merck products with your branding on the packaging or modify the appearance of the test strips/papers and color card as well.
- **Innovative customized products**  
If the test you need is not offered, we can discuss solutions for your individual requirements.

For our minimum order quantity requirements, or additional details, please contact our Customer Service.

