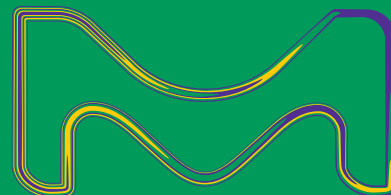


Analytical
Products



A PRECISE & MOBILE LABORATORY

RQflex® 20 reflectometer

Reflectoquant® system for
easy in-process monitoring
and rapid QC analysis



The life science business of Merck KGaA,
Darmstadt, Germany operates as
MilliporeSigma in the U.S. and Canada.

**MILLIPORE
SIGMA**

Reflectoquant® system

Mobile accuracy with test strips

strip – dip – read – record – action

Take your lab to the sample with the compact and easy-to-use RQflex® 20 reflectometer. Monitor materials at any stage of your production process or during disinfection control to obtain precise quantitative results rapidly, and directly on-site.

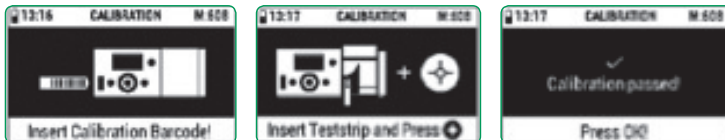
The Reflectoquant® system consists of test strips and reflectometers, this mobile laboratory gives you all the tools you need for high quality, low cost analyses for a wide spectrum of sample materials from food, water, and industrial

1. INTUITIVE MENU NAVIGATION

Our new menu is simple and easy to use to access all your methods, results and quality assurance options, along with the ability to tailor your settings to your needs.



The display shows easy-to-follow pictograms of the method and workflow for straightforward measurement and accurate reproducible results.



2. PORTABLE ANALYSIS

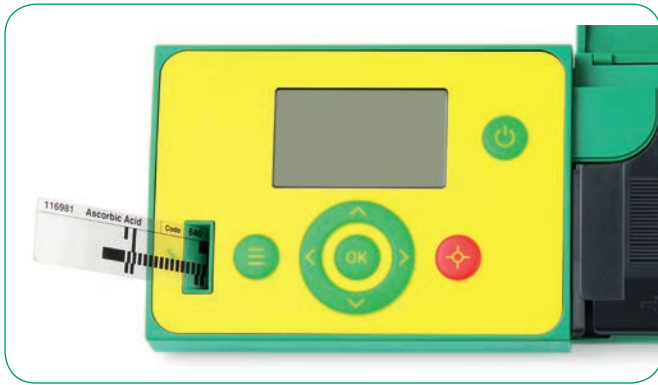
This light and compact system acts like a mobile laboratory to perform critical analyses and obtain quantitative results directly on-site. Get results in minutes for easy monitoring of your materials throughout your workflow.



7. DIFFERENT LANGUAGES AVAILABLE

Choose from English, German, French, Spanish, Portuguese, Japanese or Chinese.

3. BARCODED TEST STRIPS WITH BATCH SPECIFIC CALIBRATION



For every test condition, each batch of test strips is calibrated and equipped with a barcode for accurate and reproducible results. Obtain consistent results quickly with an average accuracy within $\pm 10\%$ in the middle of the measuring range.

4. INSTRUMENT-SUPPORTED ANALYTICAL QUALITY ASSURANCE

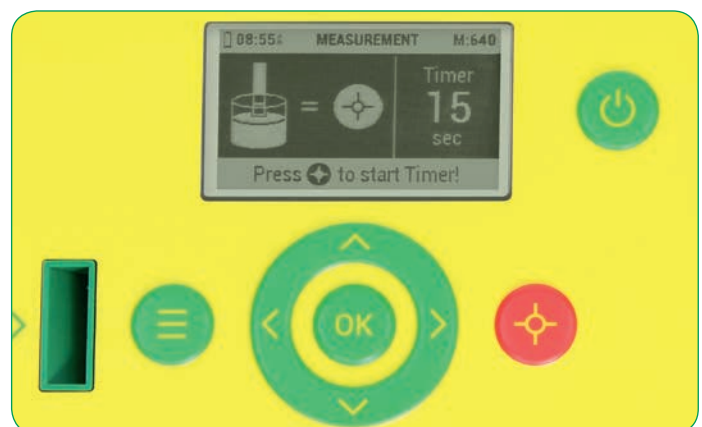
For analytical quality assurance (AQA), the RQcheck and total system monitoring (TSM) process ensures accurate and precise measurement results. Straightforward calibration can be easily carried out to reset the baseline, so your results will always be reliable.

5. TESTS AND APPLICATION NOTES TO FIT YOUR NEEDS

From ammonium through to nitrate and urea, we have a comprehensive range of test kits for fast instrumental analysis, e.g., for testing sugar content in chocolate, nitrate content in vegetables, or the freshness of honey.

6. COUNTDOWN-TIMER TO STREAMLINE YOUR ANALYSIS

For maximum reproducibility, a countdown-timer with an advanced warning alert before the end of the test strip preparation time can be tailored to fit in with your workflow.



Reflectoquant® system

Mobile accuracy with test strips

DISCOVER OUR APPLICATION NOTES FOR REFLECTOMETRY

Reflectoquant® application notes offer a step-by-step sample preparation guide, and information to determine various parameters for agriculture, food & beverage, or disinfection control processes.

With over 100 application notes for reflectometry, find the ideal method to support your production processes and analyses.

SigmaAldrich.com/wfa-applications



AGRICULTURE



CONTROL NUTRIENTS IN SOILS AND PLANT PRODUCTS

Along with nitrogen, phosphorus is a nutrient that plants need in large quantities for normal growth. Due to possible over-fertilization, it is important to analyze those parameters in agriculture production.

Find out how the mobile Reflectoquant® test system and our application notes for agriculture will support your analyses and crop management. For high-precision analyses we offer the Spectroquant Prove® benchtop system.

DISINFECTION CONTROL

0.1% PERACETIC ACID IS ENOUGH TO KILL BACTERIA, VIRUSES, FUNGI AND EVAN SPORES IN THE SHORTEST POSSIBLE TIME

That's why it is used for cold septic disinfection of beverage bottle, for example. Complete disinfection control involves various methods for testing parameters at high and low concentration ranges.

See how our mobile Reflectoquant® systems as well as our handy MQuant® Test Strips offer efficient solutions for on-site analysis. Our Spectroquant® Move system has a dedicated handheld instrument for disinfection control analysis.



FOOD & BEVERAGE

RAPID QUANTITATIVE DETECTION OF HYDROXYMETHYLFURFURAL IN HONEY

The freshness of honey is determined by measuring its hydroxymethylfurfural (HMF) content. HMF is an organic compound that arises from the dehydration of fructose, e.g. when honey is heated for easier filling. HMF is barely detectable in freshly centrifuged honey, but increases about 2.3 mg/kg annually, depending on storage temperature and pH.

At 21 °C, HMF content can rise to 20 mg/kg in just one year.

See how our application notes “HMF in Honey” and the Reflectoquant® HMF test provide you the first rapid test for the accurate determination of HMF content in just a few minutes.



TEST VITAMIN C IN FOOD & BEVERAGES

Vitamin C (ascorbic acid) is an essential characteristic of many foods and drinks. Its depletion should be monitored as it implies a deterioration of quality and taste.

See our Reflectoquant® Ascorbic Acid Test application notes for over 15 sample materials.

MONITOR ACRYLAMIDE FORMATION

In fried or baked goods, like potato chips, the reaction between asparagine and reducing sugars (fructose, glucose, etc.) may produce acrylamide, which is considered toxic and carcinogenic. Consequently, maximum limits of reducing sugars in potatoes should not be exceeded.

Find our application “Total sugar in potatoes” for Reflectoquant® Total Sugar Test.



SMALL, RAPID, PRECISE TESTS

	Parameter	Graduation	No. of tests	Ord. No	Method	Type
A	Ammonium Test	0.2 – 7.0 mg/L NH ₄	50	1.16892.0001	Indophenol blue	Reagent, incl.
	Ammonium Test	5.0 – 20.0 mg/L NH ₄	50	1.16899.0001	Indophenol blue	Reagent, incl.
	Ammonium Test	20 – 180 mg/L NH ₄	50	1.16977.0001	Nessler	Reagent, incl.
	Ascorbic Acid Test	25 – 450 mg/L ascorbic acid	50	1.16981.0001	Phosphomolybdic blue	
B	Blank Strip		50	1.16730.0001		
C	Calcium Test	5 – 125 mg/L Ca	50	1.16125.0001	Phthalein complexone	
	Chlorine Test (free chlorine)	0.5 – 10.0 mg/L Cl ₂	50	1.16896.0001	Redox reaction	Reagent, incl.
F	Formaldehyde Test	1.0 – 45.0 mg/L HCHO	50	1.16989.0001	Triazole	Reagent, incl.
G	Glucose Test	1 – 100 mg/L Glucose	50	1.16720.0001	Enzymatic reaction	
H	Hydroxymethylfurfural Test	1.0 – 60.0 mg/L HMF	50	1.17952.0001	Enzymatic reaction	
I	Iron Test	0.5 – 20.0 mg/L Fe(II)	50	1.16982.0001	Triazine	
	Iron Test	20 – 200 mg/L Fe(II)	50	1.16983.0001	2.2'-Bipyridine	
L	Lactic Acid Test	3.0 – 60.0 mg/L lactic acid	50	1.16127.0001	Enzymatic reaction	
M	Magnesium Test	5 – 100 mg/L Mg	50	1.16124.0001	Phthalein complexone	
	Malic Acid Test	5.0 – 60.0 mg/L malic acid	50	1.16128.0001	Enzymatic reaction	
N	Nitrate Test	3 – 90 mg/L NO ₃	50	1.16995.0001	Modified Griess' reaction	
	Nitrate Test	5 – 225 mg/L NO ₃	50	1.16971.0001	Modified Griess' reaction	
	Nitrite Test	0.5 – 25.0 mg/L NO ₂	50	1.16973.0001	Griess' reaction	
	Nitrite Test	0.03 – 1.00 g/L NO ₂	50	1.16732.0001	Aromatic amine	
P	Peracetic Acid Test	1.0 – 22.5 mg/L peracetic acid	50	1.16975.0001	Redox reaction	
	Peracetic Acid Test	20.0 – 100 mg/L peracetic acid	50	1.17956.0001	Redox reaction	
	Peracetic Acid Test	75 – 400 mg/L peracetic acid	50	1.16976.0001	Redox reaction	
	Peroxide Test	0.2 – 20.0 mg/L H ₂ O ₂	50	1.16974.0001	Enzymatic reaction	
	Peroxide Test	20.0 – 100 mg/L H ₂ O ₂	50	1.17968.0001	Enzymatic reaction	
	Peroxide Test	100 – 1,000 mg/L H ₂ O ₂	50	1.16731.0001	Enzymatic reaction	
	pH Test	pH 1.0 – 5.0	50	1.16894.0001	Mixed indicator	
	pH Test	pH 4.0 – 9.0	50	1.16996.0001	Mixed indicator	
	pH Test for Cooling Lubricants	pH 7.0 – 10.0	50	1.16898.0001	Mixed indicator	
	Phosphate Test	5 – 120 mg/L PO ₄	50	1.16978.0001	Phosphomolybdic blue	Reagent, incl.
	Potassium Test	0.25 – 1.20 g/L K	50	1.16992.0001	Dipicrylamine	Reagent, incl.
S	Sucrose Test	0.25 – 2.50 g/L	50	1.16141.0001	Enzymatic reaction	Reagent, incl.
	Sulfite Test	10 – 200 mg/L SO ₃	50	1.16987.0001	Nitroprusside/ Zn-hexacyanoferrate	
T	Total Hardness Test	0.1 – 30.0 °d	50	1.16997.0001	Phthalein complexone	
	Total Sugar Test (glucose and fructose)	65 – 650 mg/L total sugar	50	1.16136.0001	Enzymatic reaction	Reagent, incl.



You can directly order the tests
in our eShop via QR-Code.



[SigmaAldrich.com/reflectoquant](https://www.sigmaaldrich.com/reflectoquant)