

Reflectoquant[®] System. Easy in-process monitoring for food & beverages.



VWR  | vwr.com
We Enable Science

EMD Millipore Corp. is a subsidiary of
Merck KGaA, Darmstadt, Germany

Take your lab with you

At EMD Millipore, when we say that we support you every step of the way, we truly mean it. A prime example is the Reflectoquant® System. Simply put, it's your inexpensive, mobile laboratory for on-the-spot analysis anywhere and anytime.

While Reflectoquant® is convenient and simply to use, it's also state-of-the-art. It allows you to reliably examine every stage of your production process thus ensuring a consistently high quality. This comprehensive system includes everything you'll need for in-process monitoring: test strips and test kits as well as the RQflex® 10 and RQflex® 10 plus reflectometers.

Reflectoquant® is also versatile. Offering numerous tests with a broad range of parameters, measuring ranges and applications, it can handle many sample materials. So whether you work in agriculture, food and water analysis, cleaning control, or industrial analysis, the Reflectoquant® System is a mini-lab that's made just for you.



Reflectoquant® Ascorbic Acid Test simplifies the in-process controls for juice production.

Your benefits

- Small and easy to handle for on-the-spot analysis
- Barcode calibration for reliable, quantitative results in a matter of minutes
- Many applications available
- Low analysis costs
- Environmentally friendly thanks to a minimal requirement of reagents

The Reflectoquant® product range at a glance

The basic components of a compact solution to analyze more than 20 parameters



Instruments	RQflex® 10 Instrument and basic accessories to measure test strips	RQflex® 10 plus Most flexible instrument to measure test strips and solutions (cell tests)
Test kits		
Reflectoquant® Tests Many parameters need only test strips. If further reagents and tools are needed, they are included in the kits	●	●
Reflectoquant® plus Tests Cell test kits for higher sensitivity especially in agricultural and water analysis		●
Application instructions		
Application finder – Reflectometry: Tested protocols to prepare food and beverage samples for analysis	●	●
Quality control		
Standards Instruction manuals recommend EMD Millipore standard solutions or materials to prepare your own standard solution	●	●
Data transfer		
RQdata Interface and software package for transfer and documentation of results on IBM-compatible PCs	●	●

Reflectoquant[®] System

Fast and inexpensive
supervision of raw materials
during production

Hydroxymethylfurfural (HMF) in honey

The amount of hydroxymethylfurfural (HMF) in honey is an important quality criterion. The Reflectoquant[®] HMF test is the very first rapid test for the determination of hydroxymethylfurfural (HMF) content in honey. Check our application "HMF in honey" which is an alternative to time consuming HPLC analysis for your screening tests.

Ascorbic acid in food

Ascorbic acid (vitamin C) counts as an essential quality characteristic in many foods. A loss of vitamin C means a deterioration of the food quality which can even be tasted. Check our Reflectoquant[®] Ascorbic Acid Test applications for over 15 sample materials.

Reducing (total) sugar in potatoes



In fried or backed goods, such as potato chips, acrylamide may be produced by the reaction between asparagine and reducing sugars (fructose, glucose, etc.). The recommended upper level of reducing sugars in potatoes should not exceed a set limit. Check our application "Total sugar in potatoes" for Reflectoquant[®] Total Sugar Test.

Nitrate in vegetables

Nitrate in itself is not harmful to human health. Its metabolic products, on the other hand, can be harmful. Limits have been set for nitrate levels in foods, like drinking water, infant foods and vegetables. Check our Reflectoquant[®] Nitrate Test applications for over 15 sample materials.



RQflex® 10/RQflex® 10 plus reflectometers

RQflex® 10		VWR Cat. No. EM1.16970.0001
Reflectometer for the evaluation of Reflectoquant® test strips		
Scope of delivery and features	includes test strip adapter and recalibration set, double optical system (option for evaluation for two reaction zones), memory for five methods, memory slots for 50 results (with date, time, parameter, and result), interface to PC, batch-specific calibration function (bar-code technology), battery operation with 4 AAA batteries, detailed manual for reflectometer and tests	
RQflex® 10 plus		
Reflectometer for the evaluation of Reflectoquant® test strips and Reflectoquant® plus test kits		
Scope of delivery and features	as above for Ord. No. 1.16970.0001, also contains cell adapter and eight empty cells	VWR Cat. No. EM1.16955.0001
		

RQflex® sample preparation

Dilution and decoloration		VWR Cat. No.
Polyvinylpyrrolidone Divergan® RS, 100 g		EM1.07302.0100
Preserving milk samples		VWR Cat. No.
Sodium azide tablets, 5,000 tabs		EM1.06687.0001
Potassium dichromate tablets, 5,000 tabs		EM1.04858.0001

RQflex® accessories

RQdata for RQflex® 10 and RQflex® 10 plus		VWR Cat. No.
Interface and software package for transfer and documentation of results on IBM-compatible PCs		EM1.16998.0001
Test-strip adapter for RQflex® 10 and RQflex® 10 plus		EM1.16953.0001
Cell adapter for RQflex® 10 plus		EM1.16729.0001
Recalibration set for RQflex® 10 and RQflex® 10 plus		EM1.16954.0001
Empty cells for RQflex® 10 plus, 100 disposable cells		EM1.16727.0001
RQcheck check set for RQflex® 10 and RQflex® 10 plus		EM1.16957.0001



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Reflectoquant® tests

Parameter	Graduation	No. of tests	VWR Cat. No.	Method	Type
A Ammonium Test	5.0–20.0 mg/l NH ₄	50	EM1.16899.0001	Indophenol blue	R
Ascorbic Acid Test	25–450 mg/l ascorbic acid	50	EM1.16981.0001	Phosphormolybd. blue	
Ascorbic Acid Test RQeasy	25–450 mg/l ascorbic acid	50	EM1.17963.0001	Phosphormolybd. blue	
B Blank Strip		50	EM1.16730.0001		
C Calcium Test	5–125 mg/l Ca	50	EM1.16125.0001	Phthaleinkomplexone	
G Glucose Test	1–100 mg/l glucose	50	EM1.16720.0001	Enzymatic reaction	
H Hydroxymethylfurfural Test	1.0–60 mg/l HMF	50	EM1.17952.0001	Enzymatic reaction	
I Iron Test	0.5–20.0 mg/l Fe(II)	50	EM1.16982.0001	Triazine	
Iron Test	20–200 mg/l Fe(II)	50	EM1.16983.0001	2,2'-Bipyridine	
L Lactic Acid Test	3–60.0 mg/l lactic acid	50	EM1.16127.0001	Enzymatic reaction	
M Magnesium Test	5–100 mg/l mg	50	EM1.16124.0001	Phthaleinkomplexone	
Malic Acid Test	5.0–60.0 mg/l malic acid	50	EM1.16128.0001	Enzymatic reaction	
N Nitrate Test	3–90 mg/l NO ₃	50	EM1.16995.0001	Modified Griess' reaction	
Nitrate Test	5–225 mg/l NO ₃	50	EM1.16971.0001	Modified Griess' reaction	
Nitrate Test RQeasy	5–250 mg/l NO ₃	50	EM1.17961.0001	Modified Griess' reaction	
Nitrite Test	0.5–25.0 mg/l NO ₂	50	EM1.16973.0001	Griess' reaction	
P Peracetic Acid Test	1.0–22.5 mg/l peracetic acid	50	EM1.16975.0001	Redox reaction	
Peracetic Acid Test	75–400 mg/l peracetic acid	50	EM1.16976.0001	Redox reaction	
Peroxide Test	0.2–20.0 mg/l H ₂ O ₂	50	EM1.16974.0001	Enzymatic reaction	
pH Test	pH 1.0–5.0	50	EM1.16894.0001	Mixed indicator	
pH Test	pH 4.0–9.0	50	EM1.16996.0001	Mixed indicator	
pH Test for Cooling Lubricants	pH 7.0–10.0	50	EM1.16898.0001	Mixed indicator	
Phosphate Test RQflex plus	0.1–5.0 mg/l PO ₄	100	EM1.17942.0001	Phosphormolybd. blue	
Potassium Test RQflex plus	1.0–25.0 mg/l K	100	EM1.17945.0001	Kalignost, turbidimetric	
S Sucrose Test	0.25–2.5 g/l	50	EM1.16141.0001	Enzymatic reaction	R
Sulfite Test	10–200 mg/l SO ₃	50	EM1.16987.0001	Nitroprusside/ Zn-hexacyanoferrate	
T Total Hardness Test	0.1–30.0 °d	50	EM1.16997.0001	Phthaleinkomplexone	R

R incl. reagent

	Agriculture	Aquaristics	Beverages	Biotechnology, fermenter	Boiler water, cooling water	Construction-material	Disinfection control	Disposal drainage water	Drinking water	Electroplating	Environment	Food	Groundwater, surface water	Milk, dairy products	Mineral water	Seawater	Swimming pools	Wastewater	Parameter
	•			•	•			•	•		•		•		•	•		•	Ammonium Test
	•		•									•		•					Ascorbic Acid Test
	•		•									•		•					Ascorbic Acid Test RQeasy
			•									•							Blank Strip
	•		•		•				•			•	•	•	•				Calcium Test
			•	•								•							Glucose Test
			•									•							Hydroxymethylfurfural Test
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										•									pH Test for Cooling Lubricants
	•	•	•		•					•			•		•			•	Phosphate Test RQflex plus
	•		•									•		•	•	•			Potassium Test RQflex plus
			•									•		•					Sucrose Test
			•		•			•				•							Sulfite Test
		•	•		•				•		•		•			•		•	Total Hardness Test

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0815 Lit. No. 051319W