Portable Imaging Spectrocolorimeter

X-Rite RM200QC

When measuring color, it used to be that what you saw was not always what you got. No more. The X-Rite RM200QC Imaging Spectrocolorimeter bridges the gap between color appearance and material color — from incoming material batches to outgoing product shipments — in an elegant, portable unit that fits comfortably in your hand.

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X-Rite RM200QC

A Hand-Held Solution
For Versatile Color Measurement

1. **Display.** Communicates color information, instrument status, and option.
2. **Measure button.** Two stage button; press lightly to start preview and firmly to measure.
3. **Navigation control.**
4. **Enter button.** Selects menu items and opens tag menu.
5. **Power on/off.**
6. **Speaker and Microphone.** For recording and playback of voice tags.
7. **USB connection.** USB connection for charging the battery and interface to computer or printer.

Bring Clarity To Color QC

Color sells. In toys, electronics, appliances — an eye-catching color is a consumer-catching advantage. And when your color, or colors, become brand standards, you want to be sure you match them with every product run.

How do you make sure?

Setting and maintaining color standards throughout the manufacturing process is a daunting challenge. The eye test is no longer good enough. Basic colorimeters or color swatches aren't clear enough. More sophisticated instruments are often complicated, unwieldy, and difficult to calibrate between ingoing and outgoing measurements.

What's needed is a simple, reliable tool everyone can use.

The RM200QC is that tool. Lightweight, and easy to handle, the RM200QC comes ready to use. In barely more than a second you get a reading on your sample, and a report that tells you how close your color is to a measured standard. That's it. You won't need to connect to a software program; it's all right at hand.

What this means for your color QC program is a clear advantage, one that allows you to:

- Achieve stable color quality throughout your manufacturing process
- Manage suppliers efficiently, each adhering to a single standard
- Control variations between lab formulation, production, and final goods
- Control batch variations
- Eliminate issues related to staff experience; everyone uses the same device
- Enhance accuracy by combining the technology with custom or off-the-shelf color standards from Pantone and Munsell

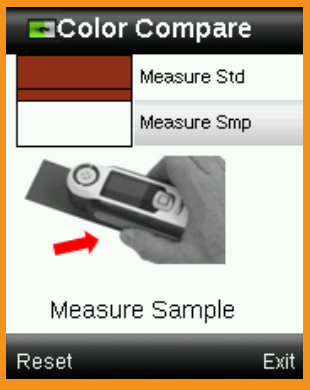
Where Does the RM200QC Work?

The RM200QC is designed to provide stable color comparisons for materials and products wherever color control is important. Here are just a few of the industries where RM200QC makes a difference:

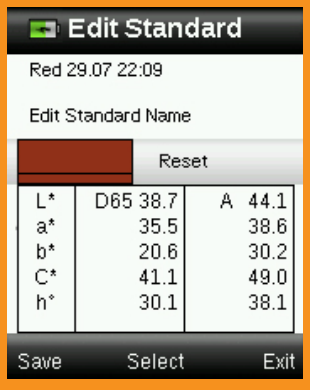
- Appliances & Housewares
- Building Materials
- Consumer Electronics
- Food and Baked Products
- Apparel/Textiles
- Soft & Hard Home Products
- Toys
- Accesssories
- Plastics
- Paints & Coatings

Build a Complete Color Program

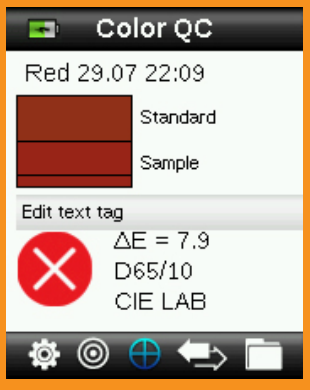
For the ultimate in performance, the RM200QC is ideal for use with Munsell/Pantone color standards. The production of these standards requires tight manufacturing tolerances, promoting a synchronous relationship between visual and measured results of color evaluation at any location. This, in turn, provides the consistency needed to maintain an accurate, reliable color program.



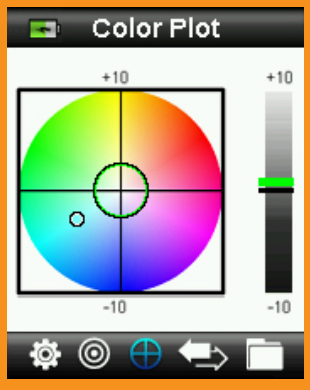
Quickly and easily measure and compare samples with intuitive user interface.



Create and store up to 20 standards using the averaging function for highest accuracy.



Measure samples and display Pass/Fail warnings. Save up to 350 samples with voice or text tags

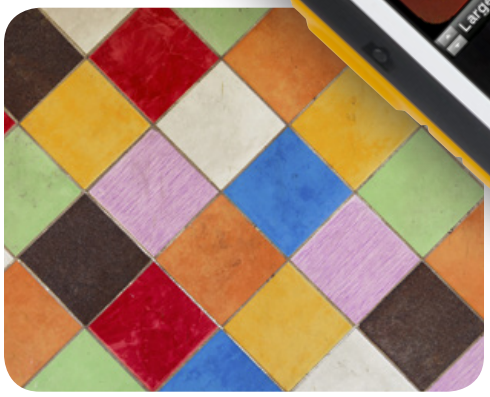


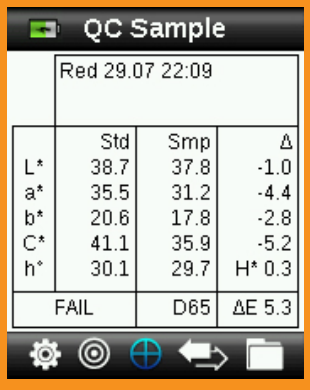
Simple to understand color plot shows the difference between standard and sample.



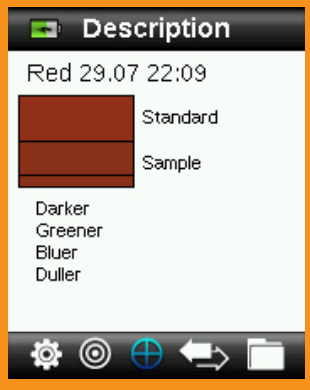




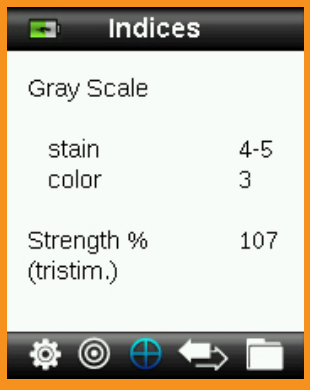



RM200QC provides accurate L*a*b*C*H* standard, sample and color difference values.



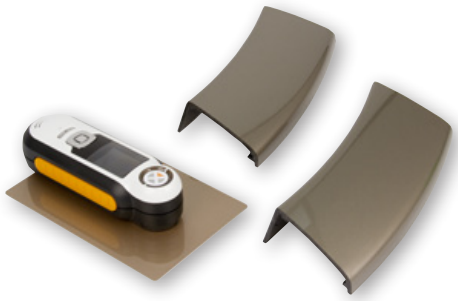
Verbal color descriptions help to understand and describe the direction of color difference



Gray Scale and Strength functions are included for textile assessment. RM200QC offers superior ergonomics for this application and improved performance (compared to visual evaluation).

On board Opacity measurement provides accurate and flexible functionality for coatings and plastics.

Better Working Agreement



RM200QC measures color accurately by taking images of your sample using 8 different visible illuminations and 1 UV LED (9 bands), an advantage over traditional colorimeters that typically have only three 3 bands (Red, Green, and Blue).

The unique imagining technology of RM200QC provides better agreement to visual observations through its 45/0 optical geometry and proprietary image capture technology. Each measurement is a combination of 27 images illuminated with different colors and from different directions. This takes just a little over a second and provides the device with information on color as well as on surface texture effects.

RMC200QC allows precise positioning on your sample, first for preview of the measurement area and then to store and recall the image after measurement.

Increased Quality Control

RM200QC allows you to measure up to 20 reference standards and store these on the device, each date and time stamped with the option to name them using the onscreen keyboard.

A maximum of 350 sample measurements can be stored on the device and compared to the reference standards.

Test results are easily seen with:

- Graphical Pass/Fail indicator
- Display of dE for all common methods i.e. CIELAB, CMC, CIE 94, 2000
- Display of measured and delta differences with L*a*b*C*h° for standard and sample
- Graphical L*a*b* plot
- Verbal color difference description

Tagging your samples either using the on screen keyboard for text or the built in voice recorder makes it easy to identify your measurements.

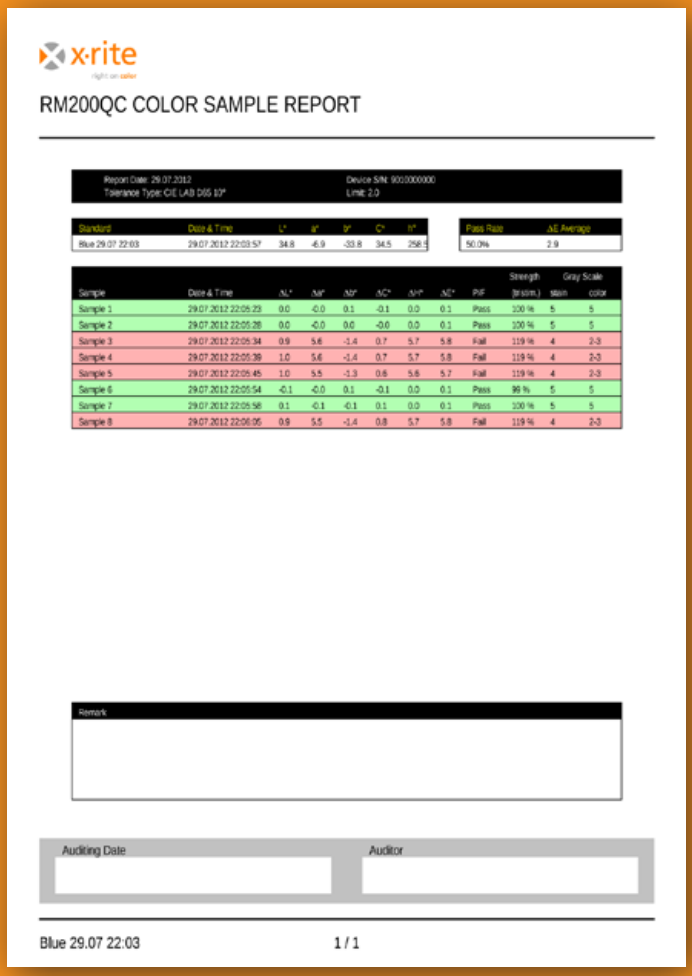
If you need a more in-depth report, RM200QC automatically creates PDF and CSV files that can be accessed on your computer with the device set in the "USB Report Mode". It's as simple as plugging in a memory stick!

Quick Responsive Tools

When you want just a quick check, the RM200QC provides:

- "Color Compare" automated measurement for standard and sample comparison
- "Opacity Check" measurement function to control the covering power of coatings
- "Gray Scale" measurement for stain and color change assessment on textiles. RM200QC offers superior ergonomics for this application (compared to a benchtop spectrophotometer measurement), and improved performance (compared to visual evaluation).
- "Strength" measurement for any manufacturing process that requires control and adjustment of color component strength

The RM200QC automatically creates conformance reports in PDF and Excel formats, for the stored samples against each standard. These can be output to a computer or directly to a compatible printer (Printers supporting USB Memory stick with PDF file type).



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RM200QC COLOR SAMPLE REPORT

Report Date: 29.07.2012
Tolerance Type: CIE LAB D65 10°
Device S/N: 900000000
Limit: 2.0

Standard	Date & Time	L*	a*	b*	C*	h°
Blue 29.07 22:03	29.07.2012 22:03:57	34.8	-6.9	-33.8	34.5	258.5

Pass Rate	ΔE Average
50.0%	2.9

Sample	Date & Time	ΔL*	Δa*	Δb*	ΔC*	Δh*	ΔE*	P/F	Strength (prism.)	Gray Scale stain	Gray Scale color
Sample 1	29.07.2012 22:05:23	0.0	-0.0	0.1	-0.1	0.0	0.1	Pass	100 %	5	5
Sample 2	29.07.2012 22:05:28	0.0	-0.0	0.0	-0.0	0.0	0.1	Pass	100 %	5	5
Sample 3	29.07.2012 22:05:34	0.9	5.6	-1.4	0.7	5.7	5.8	Fail	119 %	4	2-3
Sample 4	29.07.2012 22:05:39	1.0	5.6	-1.4	0.7	5.7	5.8	Fail	119 %	4	2-3
Sample 5	29.07.2012 22:05:45	1.0	5.5	-1.3	0.6	5.6	5.7	Fail	119 %	4	2-3
Sample 6	29.07.2012 22:05:54	-0.1	-0.0	0.1	-0.1	0.0	0.1	Pass	99 %	5	5
Sample 7	29.07.2012 22:05:58	0.1	-0.1	-0.1	0.1	0.0	0.1	Pass	100 %	5	5
Sample 8	29.07.2012 22:06:05	0.9	5.5	-1.4	0.8	5.7	5.8	Fail	119 %	4	2-3

Remark

Auditing Date

Auditor

Blue 29.07 22:03 1 / 1

X-Rite RM200QC Specifications

Measuring Geometrics:	45/0 Image Capture
Light Source:	Independent tri-directional 25 LED (8* visible wavelengths; 1* UV)
Illuminant/Observer:	D65/10 and A/10
Standards/Sample Storage:	20/350
Measurement time:	1.8 seconds
Measuring Area:	4 & 8 mm
Short Term Repeatability:	Typical 0.10 DE 94 on white (D65/10)
Display:	4.5cm Color TFT
Data Interface:	USB (Mass Storage Device)
Operating Temp:	0° to 40°C (50° to 104°F)
Storage temp:	-20° to 60°C (-4° to 140°F)
Humidity Range:	20- 80% RH (non-condensing)
Usage:	Indoor use only
Altitude:	2000m
Pollution Degree:	2
Transient Overvoltage:	Category II

*** Good ** Better *** Best**

	RM200QC 	SP60 	SP64 
Minimum recommended tolerance	* 1.0 ΔE (limited to 0.8 ΔE as smallest settable tolerance)	** 0.6 ΔE	*** 0.3 ΔE
Digital communication of color standard data	- (not applicable relative measurement only)	- (not applicable relative measurement only)	*** Best performance and compatibility with X-Rite QC and Formulation software.
Highly textured samples	* Averaging on samples required (not recommended for textured glossy samples)	** Averaging on samples required.	*** Large aperture recommended will give best results.
Gray Scale Assessment	***	**	**
Portability	***	**	**

X-Rite: Your source for consistent color. On time. Every time.

X-Rite is a world leader in providing global color control solutions for manufacturing and quality management requirements.

Drawing on our extensive experience in the world of color, X-Rite offers the right level of services on-site or online, to support and nurture your business. Extend beyond the one year warranty with our extended warranty. With our full service contracts you can ensure your devices are well maintained, with X-Rites Annual Five Point Checkup, uniquely developed to keep devices performing to original specifications. With 12 global centers we make it even easier for customers to reach us.

Visit xrite.com for more information about X-Rite products. X-Rite customers worldwide may also call the Applications Support team at CASupport@xrite.com or Customer Service at 800-248-9748.

X-RITE WORLD HEADQUARTERS

Grand Rapids, Michigan USA • (800) 248-9748 • +1 616 803 2100

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