BYK-mac COLOR

Multi-angle color measurement

In order to control the lightness and / or color flop of an effect finish, the color needs to be measured under different viewing angles.

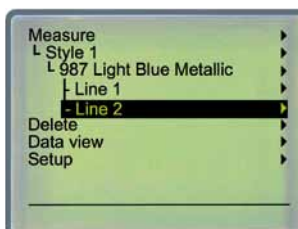BYK-mac COLOR spectrophotometer offers an attractive solution by measuring

- Traditional 5-angle color at 15°/25°/45°/75°/110°
- An additional angle at -15° "behind the gloss" for color travel of interference pigments

Ergonomic design and easy operation

The shape of the instrument is designed to ensure easy handling and true portability. With an intuitive menu quality control of metallic finishes has never been easier.
Menu guided operation according to your own sampling procedure

- Designated buttons for standard and sample readings
- Scroll wheel to select menu functions
- Storage of up to 1000 readings in selectable memories
- 4 trigger pins on the bottom plate guarantee stable positioning even on curved surfaces

Measure	▶
L Style 1	▶
L 987 Light Blue Metallic	▶
⊢ Line 1	▶
- Line 2	▶
Delete	▶
Data view	▶
Setup	▶

Center Hood		D65/10°		3/3
	ΔL*	Δa*	Δb*	ΔE*
-15°	-0.53	0.35	0.96	1.15
15°	-0.14	0.26	0.81	0.86
25°	-1.77	0.11	0.42	1.82
45°	-2.99	0.01	0.41	3.01
75°	-1.28	0.26	0.98	1.63
110°	0.60	0.44	1.00	1.24
				x
987 Light Blue Metallic			Style 1	

Reliable readings at any time

The BYK-mac COLOR uses a light source with long term stability and patented illumination control which provide superior accuracy and low maintenance for many years.

- Stable, long-term calibration – needed only every three months
- Temperature independent measurement results between 10 – 40 °C – without calibration
- Excellent agreement between instruments
- 10 year warranty on the light source – no lamp changes needed

Always ready

The instrument is operated with a rechargeable battery pack (Li-Ion). The docking station automatically charges the battery pack in the instrument as well as a spare pack located in the docking station. Optionally the instrument can be operated with 4 standard mignon alkaline or rechargeable batteries.

The docking station also transfers the measured data to a PC. For professional analysis, documentation and data management auto-chart software is included.

In compliance with:

Standards

ASTM	D 2244, E 308, E 1164, E 2194
DIN	5033, 5036, 6174, 6175-2
ISO	7724
SAE	J 1545

Certified For Preventive Maintenance see page 271.

Ordering Information

Cat. No.	Description
CM-6395	BYK-mac COLOR*
CM-6396	BYK-mac COLOR Sensor
SE-6395	Extended Warranty one year additional

Comes complete with:
Multi-angle spectrophotometer
Black calibration standard
White calibration standard with certificate
Cyan checking reference
Protective cap
Cleaning set for bottom plate
2 light protection covers
Seal replacement kit
*BYKWARE auto-chart software
Docking station with USB cable for memory transfer
Instrument interface cable for online data transfer
2 rechargeable Li-ion battery packs
Battery holder; 4 x AA batteries
Short instructions; Operating manual on CD
Carrying case; Training

Free 1x preventive maintenance service during warranty period

Hardware Requirements:
Operating system: Windows® 2000 or higher
Excel® version: 2002 or higher VBA
Memory: min. 256 MB RAM (recommended 512 MB)
Hard disk capacity: min. 100 MB
Monitor resolution: XGA (1024 x 768) or higher
Disk drive: CD-ROM or DVD
Interface: USB-port

Technical Specifications

Measuring Geometry	45° illumination -15°, 15°, 25°, 45°, 75°, 110° aspecular viewing
Measuring Area	23 mm diameter
Spectral Range	400 – 700 nm, 10 nm resolution
Measurement Range	0 to 400 % reflectance
Repeatability[1]	0.02 ΔE* (10 consecutive measurements on white)
Reproducibility[1]	0.20 ΔE* (average on 12 BCRA II tiles)
Color Scales	ΔE*; ΔE CMC; ΔE 94; ΔE 2000; ΔE 99; ΔE DIN6175
Illuminants	A; C; D50; D65; F2; F7; F11; F12
Observer	2°; 10°
Measuring Time	< 4 seconds
Memory	1000 standards / samples
Language	English, German, French, Italian, Spanish
Power Supply	Rechargeable battery pack or 4 mignon AA batteries (alkaline or rechargeable)
Operating Temperature	10 to 42° C (50 to 110 ° F)
Relative Humidity	up to 85%, 35° C (95° F); non-condensing
Dimensions	21.8 x 8.1 x 14.7 cm (8.6 x 3.2 x 5.8 in.)
Weight	approx. 1.3 kg (approx. 2.86 lbs)

[1] Standard deviation

Save! # Special Introductory Offer

– valid only for a limited time

CM-6395 BYK-mac COLOR
CM-6396 BYK-mac COLOR Sensor

BYK-mac COLOR Training

BYK-Gardner offers you more than just an instrument. We assist you in analyzing your color readings to enable you to use the BYK-mac COLOR to save time and money, while at the same time improving quality. Therefore, the instrument comes with a one day training course including:

1. Color Theory
- Parameters influencing color impression of effect finishes
- Color differences for trouble shooting

2. Operation and Software training
- Standard management
- Set-up an "organizer" to create a routine measurement procedure
- Programming of the instrument with "organizer" and measurement of several samples
- Data transfer to auto-chart software and saving in a database for routine QC
- Data analysis using standard reports:
  - Lab-scatter graph per angle to show at one glance whether all parts are within specifications
  - Color travel by sample to show how individual measurement zones perform per measurement angle
- Create your own reports in Excel®
  - Transfer data from the database to Excel®
  - Pivot function to define layout in Excel®

The training can be performed in one day or two half days. It is recommended to split the training into two half days:
Day 1: Theory and basic operation (set-up organizer, taking readings and saving in a database)
Day 2: 3-4 weeks later to ensure readings were taken and saved in a database. Data analysis and standard QC report can be explained using custom specific data.

Ordering Information

Cat. No.	Description	Accessories
CM-6332	Black Calibration Standard	To perform zero calibration
CM-6336	Protective Cap	Snap on cover to protect optics and interior components
CM-6360	Docking Station	Incl. USB interface cable and charger 100 – 240 V self adapting
CM-6337	USB Interface Cable	To connect the docking station to the PC, USB-A plug, 3 m length
CM-6413	Instrument Interface Cable, online	To connect the instrument directly to the PC
CM-6359	Battery Pack	Rechargeable battery pack for automatic charge in docking station
CM-6364	Cleaning Set for Bottom Plate	To clean instrument aperture and pin covers from dust and grease
CM-6348	Seal Replacement Set	Including 3 light protection rubber seals and 8 rubber pin covers
CM-6414	Light Protection Cover	To measure very bright colors; 10 pieces included
AW-4809	BYKWARE auto-chart	Software for data analysis with database management and professional documentation in Excel®

Note: For replacement of white and cyan effect standard, please contact your local service department.