

# micro-gloss

## Intelligent gloss measurement with smart communication

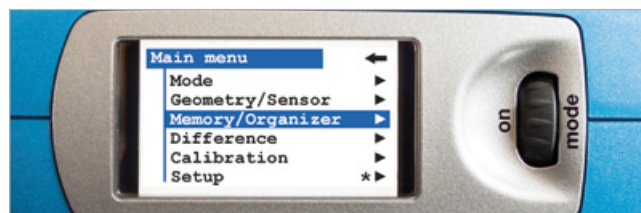
The micro-gloss has been the unsurpassed industry standard in gloss measurement for many years. It is the only glossmeter combining the highest accuracy, ease-of-use and multiple functionality – essential for today's testing requirements. In addition, the smart-chart software is the ideal tool for smart communication with professional documentation and efficient data analysis.

## Brilliant color display: easy to read – easy to use

Ergonomics and easy handling were the main focus for the design. The micro-gloss is not too large and not too small – it feels just right in your hand. The scroll wheel operation and new color display with an easy-to-navigate menu make gloss measurement easier than ever before.

## Auto diagnosis: Standard OK - Calibration OK

Accurate readings require reliable calibration. The gloss meter and calibration holder make a perfect couple – the calibration standard is always protected in the holder of the micro-gloss. The intelligent auto diagnosis of the gloss meter is a unique feature which guarantees long-term calibration stability and tells you when to calibrate. It even checks whether the standard is clean. Operator friendly. Safe.



Autodiagnosis	
20°	OK
60°	OK
85°	OK



## Gloss of paint or metal - from matte to mirror gloss

With the micro-gloss gloss meter you can measure any material - paints, plastics or brightened metals. Its expanded range measures from very matte to mirror like reflection of up to 2000 gloss units, automatically and without additional calibration. Always reliable results – according to international standards.

## Smart functions for any task

Different tasks require different tools. The easy to turn-scroll wheel of the glossmeter quickly shows you all needed functions – even without a PC:

The **Basic mode** is your tool to quickly check the gloss of a few samples.

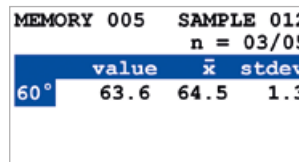
The **Statistic mode** not only shows the average, but all statistical data needed to judge whether the measured difference is significant or how uniform the surface gloss is on your sample. You define what you want to see: mean, standard deviation, range, min/max, ...

The **Difference mode** allows you to define a reference with Pass/Fail limits and will compare all of the following measurements to the selected reference. The Pass/Fail indication is colorfully shown on the high resolution display – ideal for production control.

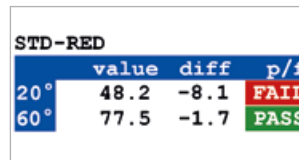
The **Continuous mode** is the most efficient way to quickly check the uniformity of a large sample surface. You define the measurement interval and are now ready to continuously measure the gloss by sliding the micro-gloss over the surface. When finished, the average with min – max range are displayed.



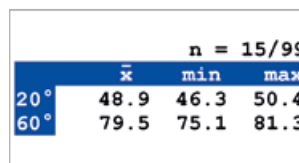
Basic mode



Statistic mode



Difference mode



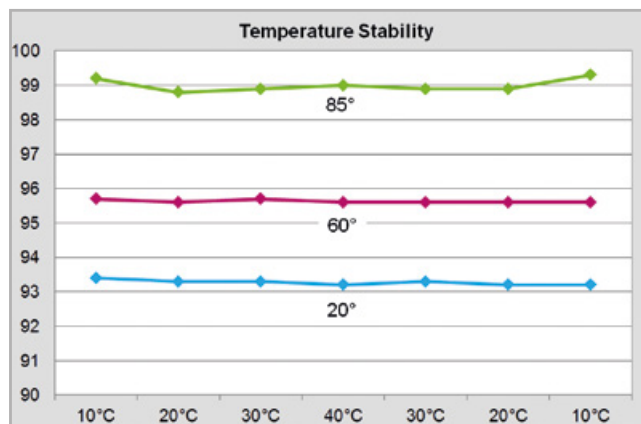
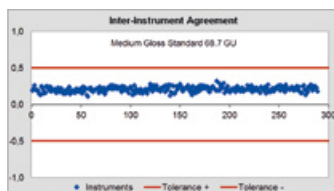
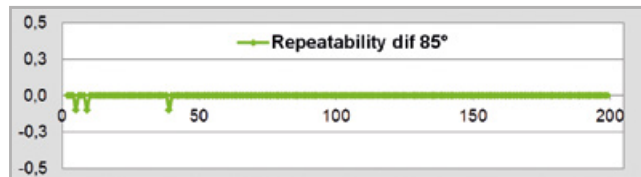
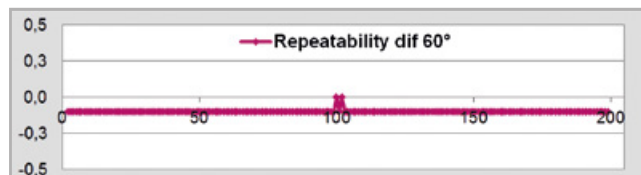
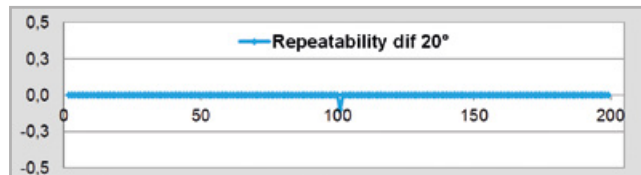
Continuous mode

## Technical Performance: Unsurpassed in the industry

No matter how harsh your production are or how tight your limits may be, accuracy and reliability of the micro-gloss are proven by thousand of users to guarantee always the highest quality.

The long-term stable LED light source of the glossmeter provides not only highly repeatable results for many years, but also will never burn out. A 10 year warranty on the lamp life is guaranteed. Due to advanced temperature control, the micro-gloss assures the highest stability of the gloss readings – if you are in the lab or move to a “hot spot” on the line.

Our patented calibration procedure during the production of the glossmeters enables an excellent inter-instrument agreement. No matter how far your customer may be away, if he is one of the thousands of micro-gloss users, he will read the same values as you.



In compliance with:

#### Standards

<b>ISO</b>	2813, 7668
<b>ASTM</b>	D 523, D 2457
<b>DIN</b>	67530
<b>JIS</b>	Z 8741

#### Ordering Information

Cat. No.	Description
<b>4560</b>	micro-gloss 20°
<b>4561</b>	micro-gloss 60°
<b>4562</b>	micro-gloss 85°
<b>4563</b>	micro-TRI-gloss
<b>4564</b>	micro-TRI-gloss $\mu$
<b>4565</b>	micro-gloss 60° S
<b>4566</b>	micro-TRI-gloss S
<b>4567</b>	micro-gloss 45°
<b>4568</b>	micro-gloss 75°
<b>4569</b>	micro-gloss 60° XS
<b>4570</b>	micro-gloss 60° XS-S
<b>4573</b>	micro-gloss 60° robotic
<b>4576</b>	micro-gloss 60° S robotic

#### Comes complete with:

Glossmeter  
 Holder with integrated calibration tile  
 Traceable certificate  
 USB-cable, Battery  
 Operating manual  
 Carrying case  
 Software for download:  
 smart-lab Gloss or smart-process Gloss with 2 licenses

**Note:** After software download both software packages can be used for 30 days free trial. Thereafter, the user needs to decide and register for one software package.

#### System Requirements:

Operating system: Windows® 7 SP1, 8.1 or 10  
 Microsoft® .NET Framework 4.5.2  
 Hardware: Core 2 Duo, 2.5 GHz, i7 recommended or equivalent  
 Memory: 4 GB RAM, 8 GB recommended  
 Hard-disc capacity: 2 GB during installation  
 Monitor resolution: 1280 x 1024 pixel or higher  
 Interface: free USB-port

#### Technical Specifications

Geometry	Application	Measuring Area
20°	high gloss	10 x 10 mm (0.4 x 0.4 in)
60°	semi gloss	9 x 15 mm (0.35 x 0.6 in)
85°	low gloss	5 x 38 mm (0.2 x 1.5 in)
20°, 60°, 85°	universal	see single angle
20°, 60°, 85°	universal	see single angle
60°	semi gloss	9 x 15 mm (0.35 x 0.6 in)
20°, 60°, 85°	universal	see single angle
45°	Ceramic, Plastic, Film	9 x 13 mm (0.35 x 0.5 in)
75°	Paper, Vinyl Siding	7 x 24 mm (0.3 x 0.95 in)
60°	semi gloss	2 x 4 mm (0.08 x 0.16 in)
60°	semi gloss	2 x 4 mm (0.08 x 0.16 in)
60°	semi gloss	9 x 15 mm (0.35 x 0.6 in)
60°	semi gloss	9 x 15 mm (0.35 x 0.6 in)
<b>Measurement range<sup>1</sup></b>	0 - 100 GU	100 - 2000 GU
<b>Repeatability<sup>2</sup></b>	$\pm 0.2$ GU	$\pm 0.2$ %
<b>Reproducibility<sup>2</sup></b>	$\pm 0.5$ GU	$\pm 0.5$ %
<b>Spectral sensitivity</b>	CIE standard observer for illuminant CIE-C	
<b>Measuring time</b>	0.5 seconds / geometry	
<b>Thickness:</b>		
<b>Substrate</b>	Fe: magnetic, NFe: non-magnetic	
<b>Measurement Range</b>	0 - 500 $\mu$ m (0 - 20 mils)	
<b>Accuracy</b>	$\pm (1.5 \mu\text{m} + 2\%$ of measured value)	
<b>Memory</b>	999 readings with date and time	
<b>Interface</b>	USB	
<b>Power supply</b>	one 1.5V AA Alkaline Battery 4,000 readings or via USB-port	
<b>Dimensions</b>	155 x 73 x 48 mm (6.1 x 2.9 x 1.9 in)	
<b>Weight</b>	0.4 kg (0.9 lbs)	
<b>Operating temperature</b>	15 - 40 °C (60 - 104 °F)	
<b>Relative humidity</b>	up to 85 %, non-condensing	

<sup>1</sup> for 45° and 75° glossmeters see previous pages

<sup>2</sup> for S-Type glossmeters see previous page

#### Ordering Information

Cat. No.	Description
<b>4405</b>	USB-Cable micro-gloss family
<b>4866</b>	Software smart-lab Gloss
<b>4867</b>	Software smart-process Gloss

**Note:** smart-chart license fee for more than two installations is quantity dependent. Please contact your local BYK-Gardner representative.

#### Accessories

For data transfer from the glossmeter to a PC, USB-A	
Software for professional analysis and documentation in the laboratory	
Process QC Software for analysis of multi-component products	
<b>Export / Import</b>	Standards (.xml format) Organizer (.xml format)
<b>Languages</b>	English, German, French, Italian, Spanish, Chinese, Japanese