Efficient gloss measurement makes your QC faster

The first micro-gloss became the industry standard in gloss measurement. The new micro-gloss combines the well-known ease-of-use and protected calibration in the holder with a new and unique functionality - designed for today's QC standards.

In the lab, in production, at the customer´s …

the micro-gloss is always ready, including calibration holder. Small as a digital camera - it is safe in your hand. Thanks to a well structured menu and a new scroll wheel the operation is easier than ever before.

Auto diagnosis: Standard OK – Calibration OK

The calibration standard is always protected and exactly positioned in the holder. New: the intelligent auto diagnosis tells you when to calibrate and even checks whether the standard is clean. Operator friendly. Safe.

Always accurate gloss values

With the new micro-gloss you can measure any material - paints, plastics or highly reflective metals.
Its new expanded measurement range of up to 2000 gloss units guarantees always reliable results - according to international standards.

The long-term stable light source and patented illumination control provide superior accuracy for many years.
Lamp changes will no longer be needed. We even give you a 10 year guarantee on the lamp life.

Optimally tailored to all your measurement needs

Different tasks ask for different tools. The easy to turn scroll wheel quickly shows you all needed functions - even without a PC:

Check uniformity on the sample?
   Continuous mode. With Min. and Max.

Compare the difference to the target?
   Difference mode. With Pass/Fail.

Average several readings per panel?
   Statistic mode. With all statistical data.
   Number of readings per sample are selectable.

Or just check a few samples in between for a colleague? Use the Basic mode to interrupt the series and operation is reduced to the simplest task.

Fast and professional documentation

Every measurement series can be saved under its own name. Input of sample names can be done quickly with the scroll wheel.

The included software easy-link allows direct data transfer to Excel® and your results are immediately shown in a professional QC-report.

micro-TRI-gloss:

Recognize deviations from the specification – right away

20°, 60°, 85° in one - as handy as the one angle unit. Having three geometries in one unit allows you to be in compliance with international standards and to quickly recognize quality variations.
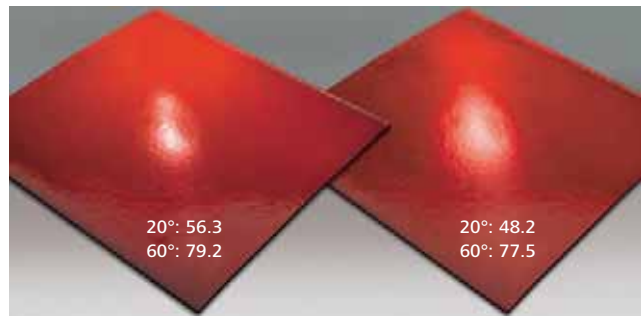

All selected geometries are measuring at the same location and the results are displayed instantly - including Difference, Pass/Fail and Statistics.

The micro-TRI-gloss has all functions of the new generation readily at hand.

In order to obtain differences clearly over the whole range from matte to high gloss, three measurement geometries were specified in international standards. Each geometry is optimized for a specific gloss range.

20°: 56.3
60°: 79.2

20°: 48.2
60°: 77.5

The different gloss of these two samples is more clearly shown in the 20° readings.

The micro-gloss family: Overview of functions

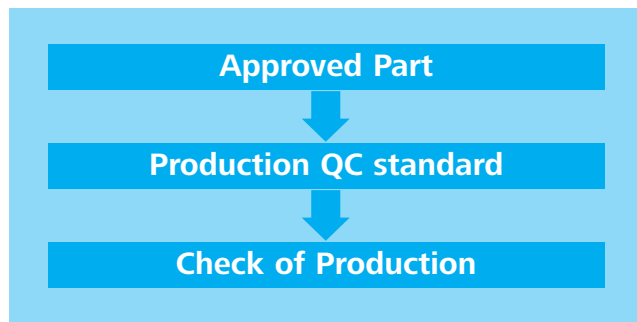|	
Continuous	actual value, average, min., max.
Difference and Pass/Fail	memory for 50 references with limits
Statistics	number of readings per sample are selectable from 2 to 99
Display in 3 columns selectable	actual value, average, std. dev.,min., max., range, difference, pass/fail
Memory	999 readings with date and time,with recall function
Interface and Software	serial RS 232; easy-link (included)
micro-TRI-gloss	simultaneous display 2 or 3 geometries
Long-term calibration	with automatic check of the calibration standard
Autorange	0 - 2000 GU (20°); 0 - 1000 GU (60°); 0 - 160 GU (85°)
Measuring time	0.5 seconds / geometry
Menu guidance switchable in	English, Spanish, German, French, Italian, Japanese
Auto shut-off time	selectable 10 - 99 seconds
Power	one 1.5V AA Alkaline Battery 10,000 readings or external power supply
Operating temperature	15 - 40 °C (60 - 104 °F)
Relative humidity	up to 85 %, non-condensing

Gloss

New Gloss Instruments for toughest QC requirements

The automotive interior design is getting more and more important in the purchasing decision. A variety of materials, from leather to plastics, are used and need to be harmonized. Additionally, the surface structures vary from large grains to fine stipples with usually very matt appearance. In order to guarantee a uniform look among the various parts very tight tolerances are specified.

**Typical Tolerances:
Gloss 60° < 5 gloss units
± 0.3 to 0.5 gloss units**

As a starting point master standard plaques are manufactured with usually a flat and several grained areas. These are sent to the suppliers as their target to achieve with actual production parts.
As the master plaques and final parts are often made of different materials the suppliers work closely with the car maker. At the end the final approval is given on a production part. This production part now becomes the standard for the supplier.

Approved Part

⬇

Production QC standard

⬇

Check of Production

Instead of working with absolute gloss numbers the supplier production QC needs to be based on the signed-off part and only the differences are checked. This procedure eliminates the reproducibility error as gloss is measured relatively on the same type of material and same surface.

micro-gloss S family

Only testing instruments with excellent precision will be able to objectively control the production. The new micro-gloss S family offers an improved performance for 60° gloss in the critical low gloss range (0-10 GU).
The excellent accuracy can be guaranteed due to our patented calibration procedure in production.

- For any material: paint, plastics or highly reflective metals
- Long-term stable calibration and automatic check of calibration standard
- Temperature stable data
- 10 years warranty on the light source
- Difference and Pass/Fail
- Statistics and Memory (999 readings)
- Easy menu operation with scroll wheel
- easy-link software for direct transfer to Excel®

Technical Specification

Measurement range	0 to 10 GU	10 to 100 GU	100 to 2000 GU
Repeatability	± 0.1 GU	± 0.2 GU	± 0.2 %
Reproducibility	± 0.2 GU	± 0.5 GU	± 0.5 %

BYK-Gardner USA • Phone 800-343-7721 • Fax 800-394-8215

micro-gloss

Visit www.micro-gloss.com

Standards

ASTM	D 523	D 2457
DIN	67530	
ISO	2813	7668
JIS	Z 8741	

Ordering Information

Cat. No.	Description
AG-4420	**micro-gloss 20°**
AG-4460	**micro-gloss 60°**
AG-4485	**micro-gloss 85°**
AG-4430	**micro-TRI-gloss**
AG-4463	**micro-gloss 60°**
AG-4437	**micro-TRI-gloss S**
SE-4420	**Extended Warranty one year additional**

Comes complete with:
Instrument
Holder with integrated calibration tile
Certificate of Traceability
Software easy-link
PC-cable
Operating manual
Battery
Carrying case

Technical Specification

	Geometry	Application	Measuring Area
	20°	high gloss	0.4 x 0.4 in (10 x 10 mm)
	60°	semi gloss	0.35 x 0.6 in (9 x 15 mm)
	85°	low gloss	0.2 x 1.5 in (5 x 38 mm)
	20°, 60°, 85°	universal	see single angle
	60°	semi gloss	0.35 x 0.6 in (9 x 15 mm)
	20°, 60°, 85°	universal	see single angle

Measurement range	0-100 GU	100-2000 GU
Repeatability[1]	± 0.2 GU	± 0.2 %
Reproducibility[1]	± 0.5 GU	± 0.5 %
Dimension	6.1 x 2.9 x 1.9 in (155 x 73 x 48 mm)	
Weight	0.9 lbs (0.4 kg)	

[1]for S-Type instruments see previous page

Ordering Information

Accessories

Cat. No.	Description	
AG-4400	**PC-cable**	For data transfer to a PC, RS 232 Sub-D 9-pins
AG-4401	**USB-adaptor**	For connection to USB-interface, incl. driver software
AG-4403	**Power supply, EU**	For external power supply, 90 - 264 V self adapting, European plug
AG-4404	**Power supply, US**	For external power supply, 90 - 264 V self adapting, USA plug
AG-4545	**BYKWARE easy-link**	Software for direct data transfer and documentation in Excel®

Trade-in any gloss meter (all brands accepted) and receive a discount toward the purchase of a new micro-gloss glossmeter. Please call us for additional information.
(Credit applied upon receipt of trade-in). Credit for trade-in:
$ 500 with purchase of micro-TRI-gloss glossmeter
$ 500 with purchase of mircro-TRI-gloss µ glossmeter
$ 250 with purchase of any single angle micro-gloss glossmeter