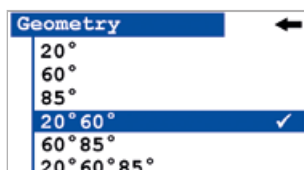


micro-TRI-gloss

See changes under the right angle

High – medium – low gloss: What is your application?

The micro-TRI-gloss combines 20°, 60°, 85° in one glossmeter – 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.



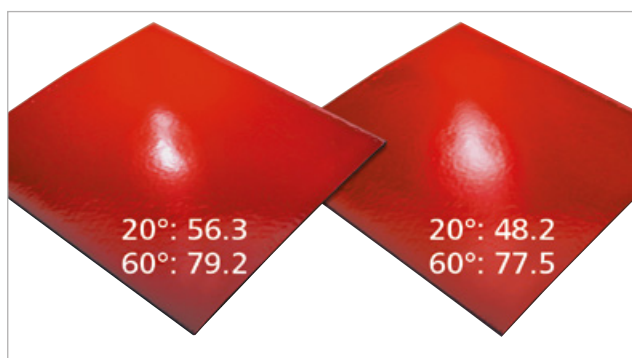
All selected angles measure at the same location and the results are displayed instantly – including Statistics, Difference, or Pass/Fail.

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

| STD-RED | | | |
|---------|-------|------|------|
| | value | diff | p/f |
| 20° | 48.2 | -8.1 | FAIL |
| 60° | 77.5 | -1.7 | PASS |



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



micro-TRI-gloss μ

Gloss and Film Thickness in one Instrument

An efficient coatings process should use as little paint as possible and fulfill the quality specifications given by the customer. Gloss and film thickness are important QC criteria for coatings. The micro-TRI-gloss M measures both, at the same position and in seconds. This saves time and is ideal for checks in the field – only one instrument to carry.

- Simultaneous display 20°, 60°, 85° – for high gloss to matte coatings
- Dual sensor Fe/NFe – measures thickness on steel as well as on aluminum



Standards

| | Gloss | Thickness |
|------|------------|------------------|
| ISO | 2813, 7668 | 2178, 2360, 2808 |
| ASTM | D523 | B499, D1400 |
| DIN | 675301 | |

In compliance with:

Standards

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

Ordering Information

| Cat. No. | Description |
|-------------|---------------------------|
| 4560 | micro-gloss 20° |
| 4561 | micro-gloss 60° |
| 4562 | micro-gloss 85° |
| 4563 | micro-TRI-gloss |
| 4564 | micro-TRI-gloss μ |
| 4565 | micro-gloss 60° S |
| 4566 | micro-TRI-gloss S |
| 4567 | micro-gloss 45° |
| 4568 | micro-gloss 75° |
| 4569 | micro-gloss 60° XS |
| 4570 | micro-gloss 60° XS-S |
| 4573 | micro-gloss 60° robotic |
| 4576 | 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) |
| Measurement range¹ | 0 - 100 GU | 100 - 2000 GU |
| Repeatability² | ± 0.2 GU | ± 0.2 % |
| Reproducibility² | ± 0.5 GU | ± 0.5 % |
| Spectral sensitivity | CIE standard observer for illuminant CIE-C | |
| Measuring time | 0.5 seconds / geometry | |
| Thickness: | | |
| Substrate | Fe: magnetic, NFe: non-magnetic | |
| Measurement Range | 0 - 500 μ m (0 - 20 mils) | |
| Accuracy | ± (1.5 μ m +2% of measured value) | |
| Memory | 999 readings with date and time | |
| Interface | USB | |
| Power supply | one 1.5V AA Alkaline Battery 4,000 readings or via USB-port | |
| Dimensions | 155 x 73 x 48 mm (6.1 x 2.9 x 1.9 in) | |
| Weight | 0.4 kg (0.9 lbs) | |
| Operating temperature | 15 - 40 °C (60 - 104 °F) | |
| Relative humidity | up to 85 %, non-condensing | |

¹ for 45° and 75° glossmeters see previous pages

² for S-Type glossmeters see previous page

Ordering Information

| Cat. No. | Description |
|-------------|------------------------------|
| 4405 | USB-Cable micro-gloss family |
| 4866 | Software smart-lab Gloss |
| 4867 | 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 | |
| Export / Import | Standards (.xml format) Organizer (.xml format) |
| Languages | English, German, French, Italian, Spanish, Chinese, Japanese |