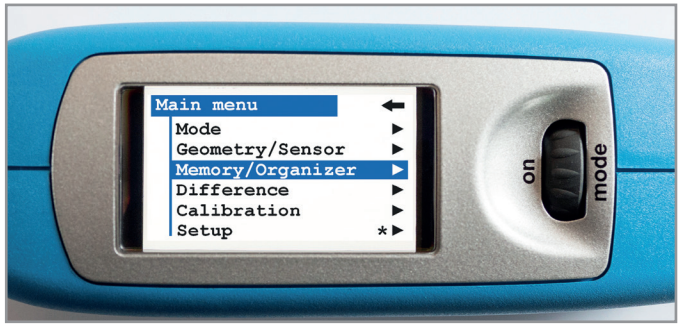
micro-TRI-gloss

Intelligent gloss measurement with smart communication

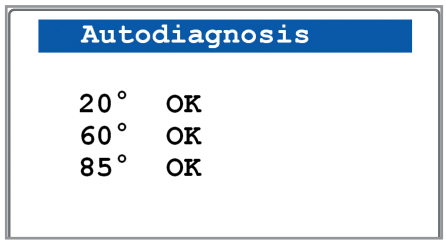
The micro-gloss has been the unsurpassed industry standard in gloss measurement for many years. It is the only glossmeter combining the highest accuracy, ease-of-use and multiple functionality - essential for today`s testing requirements. In addition, the smart-chart software is the ideal tool for smart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

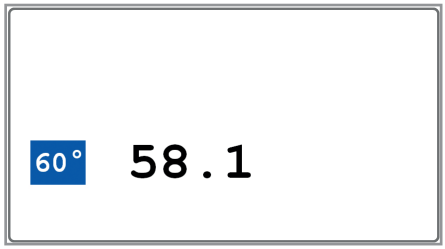
Gloss of paint or metal – from matte to mirror gloss

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.

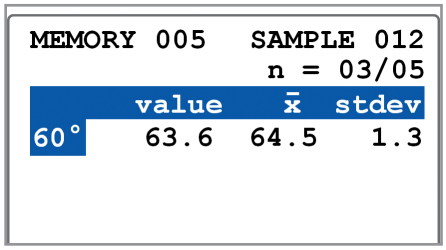
Smart functions for any task

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

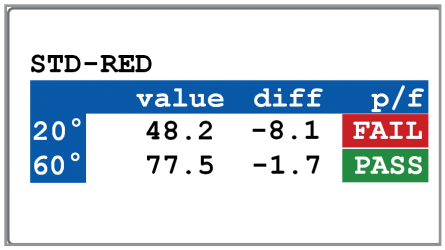
The **Basic mode** is your tool to quickly check the gloss of a few samples.



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...

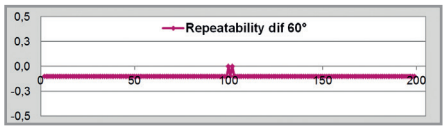


The **Difference mode** allows you to define a reference with Pass/ Fail limits and will compare all of the following measurements to the selected reference. The Pass/ Fail indication is colorfully shown on the high resolution display – ideal for production control.

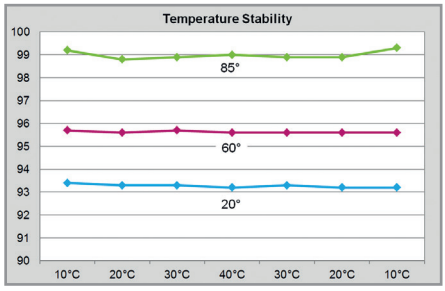


The **Continuous mode** is the most efficient way to quickly check the uniformity of a large sample surface. You define the measurement interval and are now ready to continuously measure the gloss by sliding the micro-gloss over the surface. When finished, the average with min – max range are displayed.

Technical Performance: Unsurpassed in the industry

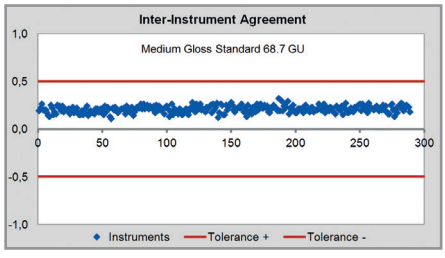


No matter how harsh your production conditions are or how tight your limits may be, accuracy and reliability of the micro-gloss are proven by thousands of users to guarantee always the highest quality.



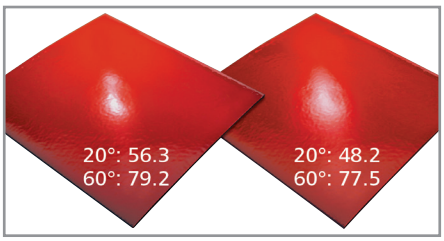
The long-term stable LED light source of the glossmeter provides not only highly repeatable results for many years, but also will never burn out. A 10 year warranty on the lamp life is guaranteed.

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.



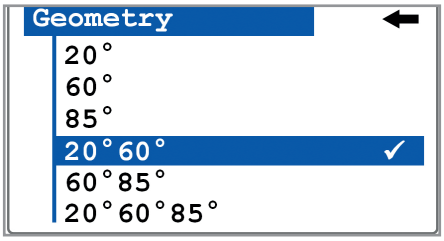
Our patented calibration procedure during the production of the glossmeters enables an excellent inter-instrument agreement. No matter how far your customer may be away, if he is one of the thousands of micro-gloss users, he will read the same values as you.

See changes under the right angle – micro-TRI-gloss



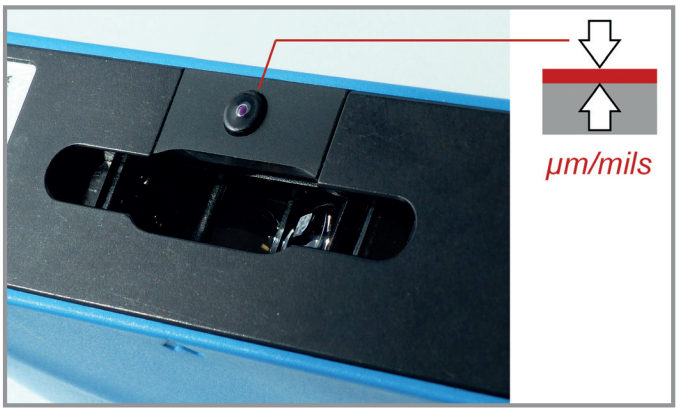
High – medium – low gloss: What is your application?
The micro-TRI-gloss combines 20°, 60°, 85° in one glossmeter – as handy as the one angle unit. Having three geometries in one unit allows you to be in compliance with international standards and to quickly recognize quality variations.

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.



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

Gloss and Film Thickness in one Instrument – micro-TRI-gloss µ



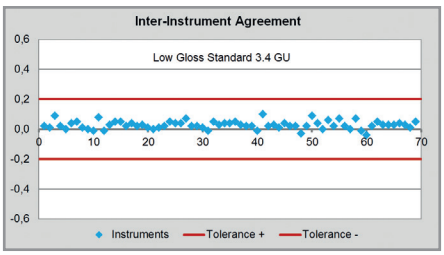
An efficient coatings process should use as little paint as possible and fulfill the quality specifications given by the customer. Gloss and film thickness are important QC criteria for coatings. The micro-TRI-gloss M measures both, at the same position and in seconds. This saves time and is ideal for 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 stell as well as on aluminum

Improved Performance for low gloss finishes (60°) – micro-gloss S-Family

A matte finish is not only a new design trend but also can be a must for applications where nor or low reflection is essential – such as car interior. Often, a variety of materials, from leather to plastics, is used and needs to be harmonized. Additionally, surface structures vary from large grains to fine stipples, usually with very low gloss.

In order to guarantee a uniform look among the various parts, very thight tolerances are specified.



Only testing instruments with excellent precision will be able to objectively control production.

The new micro-gloss S family offers improved perfomance for 60° gloss in the critical low gloss range (0–20 GU). This excellent accuracy can be guaranteed due to our patented calibration procedure during the production of the glossmeters.

smart-chart – data anaysis software

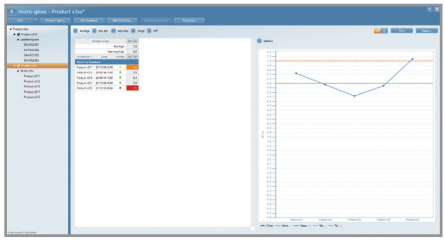
Whatever the task, smart-chart will do it for you. From simple data tables of single test series to trend reports over time - anything is possible.

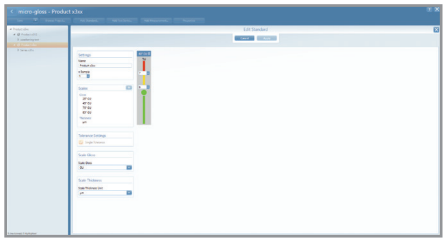
smart-lab for ONLINE measurement and memory transfer:

- Data analysis with tables and line graphs
- Data is organized in projects with easy to share xml files

smart-process for a STANDARDIZED QC:

- Sampling process with predefined measurement procedures in Organizers
- Comprehensive data analysis with easy filtering and statistical analysis





Standards

ASTM D523
ASTM D2457
ISO 2178
ISO 7668
DIN 67530
JIS Z 8741

Catalog Number	4563	4564	4566
Short Description	micro-TRI-gloss	micro-TRI-gloss µ	micro-TRI-gloss S
Geometry	20°, 60°, 85°		
Measuring Area	20°: 10 x 10 mm 60°: 9 x 15 mm 85°: 5 x 38 mm		
	20°: 0.4 x 0.4 in 60°: 0.35 x 0.6 in 85°: 0.2 x 1.5 in		
Repeatability Gloss 0-20	0.2 GU		0.1 GU
Repeatability Gloss 20-100	0.2 GU		
Repeatability Gloss 100-2000	0.20%		
Reproducibility Gloss 0-20	0.5 GU		0.2 GU
Reproducibility Gloss 20-100	0.5 GU		
Reproducibility Gloss 100-2000	0.50%		
Substrate		Fe: magnetic, NFe: non-magnetic	
Measuring Range		0 - 500 µm	
		0 - 20 mil	
Accuracy		± (1.5 µm +2% of measured value)	
Spectral sensitivity	CIE standard observer for illuminant CIE-C		
Measuring time	0.5 seconds / geometry		
Memory	999 readings with date and time		
Languages	DE, EN, ES, FR, IT, PL, PT, RU, TR, ZH		
Interface	USB		
Power supply	one 1.5V AA Alkaline Battery, or via USB-port		
Battery Capacity	4,000 readings		
Dimensions: L x W x H	15.5 x 4.8 x 7.3 cm		
	6.1 x 1.9 x 2.9 in		
Weight	0.4 kg		
	0.9 lb		
Operating temperature	15 - 40 °C		
	60 - 104 °F		
Relative humidity	up to 85 %, non-condensing		

Delivery Content

Glossmeter, Calibration holder, USB-cable micro-gloss (4405), Software with 2 licenses for download: smart-lab Gloss (4866) or smart-process Gloss (4867), Battery, Traceable certificate, Manual, Carrying case

System Requirements

Operating system: Windows® 10 1607 or later
Hardware: i5 2.5 GHz; i9 recommended, or equivalent (x86 & x64 architecture only)
Memory: 16 GB RAM, 32 GB recommended
Free hard-disk capacity: 4 GB during installation
Monitor resolution: 1920 x 1080 pixel; 4K recommended
Interface: free USB-port

Catalog Number	Short Description	Delivery Content
4447	Calibration Holder TRI	
4449	Calibration Holder TRI µ	
4434	Checking Standard micro-TRI	Checking standards in aluminum guide High gloss standard 3 semi gloss standards for 20°, 60°, 85°
4438	Checking Standard micro-TRI-gloss S	Checking standards in aluminum guide High gloss standard 3 semi gloss standards for 20°, 60°, 85° 60° Standard approx. 5 GU
4433	Checking Standard mirror gloss	Checking standards in aluminum guide High gloss mirror standard 3 semi gloss mirror standards for 20°, 60°, 85°
4866	smart-lab Gloss	2 licensees for download www.byk.com
4831	smart-process	Software with 2 licenses for download
4405	USB-Cable micro-gloss	