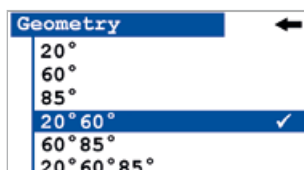


# micro-TRI-gloss

## 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.



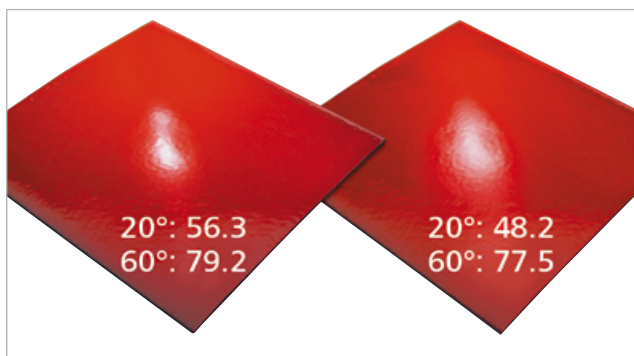
All selected angles measure at the same location and the results are displayed instantly - including Statistics, Difference, or Pass/Fail.

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 $\mu$

## 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	67530	



Labequip Ltd  
2-170 Shield Ct  
Markham, Ontario  
L3R 9T5  
905-475-5880



Please refer to section  
Preventive Maintenance.

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 M
<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

#### 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 day free trial.  
Thereafter, the user needs to decide and register  
for one software package.  
Extended Warranty: see pages about Technical Service

#### System Requirements:

Operating system: Windows® 7 SP1 or 8.1  
Microsoft® .NET Framework 4  
Hardware: Core 2 Duo, 2.2 GHz, i7 recommended or equivalent  
Memory: 4 GB RAM, 8 GB recommended  
Hard-disc capacity: min. 300 MB  
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)
<b>Measurement range</b> <sup>1</sup>	0 - 100 GU	100 - 2000 GU
<b>Repeatability</b> <sup>2</sup>	± 0.2 GU	± 0.2 %
<b>Reproducibility</b> <sup>2</sup>	± 0.5 GU	± 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 Mm (0 - 20 mils)	
<b>Accuracy</b>	± (1.5 Mm +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