



Color/Gloss Measurement

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Professional Gloss Meters

For Industry and Laboratory

Standards: ISO 2813; ASTM D523; ASTM D2457; ASTM C584; AS 1580 (602.2); BS 3900 DS; DIN 67530; JIS Z 8741; ISO 7668; MFT 30064 (exception 45° angle)



The TQC Gloss meter allows the user to measure fast and simple accurate gloss levels on any flat surface. Whether it be paper, paint, plastic, wood or any other material. No special training or skills are required.

Just place the gage, press the scan button and read the values. Template options can also provide non-flat surfaces and small test areas.

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Features

- Optical stability
- LED light source
- OLED Display, extremely high visibility and contrast
- Ergonomic shape for both right & left handed users
- USB port
- Integrated Calibration
- Menu driven operation

Mechanics Optical stability - The optical components are mounted on an extremely stable chassis made from a combination of precision milled aircraft-grade aluminum and a special injection moulded hi-tech plastic. The rock solid base assures measurements to be accurate under all circumstances and conditions.

Ergonomics OLED Display - TQC Glossmeters are equipped with the latest OLED (Organic Light Emitting Display). This new type of display offers extremely high visibility and contrast at a range of viewing angles. The innovative OLED display is positioned at an angle of 35 degrees which ensures excellent readability in all conditions. When measuring on horizontal or vertical surfaces or any angle in between.



to refer to the user's manual. The intuitive structure guides the user through the different screens to change the settings of the instrument.

Shape - The case of the instrument is designed to comfort both right-and left-handed users. The upper part is "soft touch" coated for ultimate grip and the wrist strap prevents accidental drops. The rubber operating buttons offer a pleasant feel and user friendly operation.

Calibration - In production TQC Glossmeters are calibrated against a series of reference tiles certified by the German BAM (Bundesanstalt für Materialforschung und -prüfung). Each glossmeter comes with a protective holder with integrated calibration standard for field calibration.



Technical Data



Technical Data

	20°	60°	85°
Range:	0-2000 GU	0-2000 GU	0-2000 GU
Repeatability r*:	0.4 GU	0.2 GU	0.2 GU
Reproducibility R*:	1.7 GU	1.6 GU	1.9 GU
Bias*:	1.2 GU	0.6 GU	1.6 GU

*Acc. ISO 2813 (range 0-100GU)

(Repeatability is the variability of the measurements obtained by one person while measuring the same item repeatedly)

Operational:

Calibration Standard:	Integrated tile in dust cover
Display:	High Contrast OLED display
Light Source:	Extreme low drift LED light source
Power Source:	2x AA alkaline batteries
Batches:	Max 8
Readings Per Batch:	Max 500, non-dependant of number of angles
Total Max Readings:	2000 readings with time stamp
Scan Function:	Yes
Statistics:	Min./Max. / Avg. / Std.dev / number of measurements
Security:	Password protection
Software:	Ideal Finish Analysis
Dimensions:	
Size:	3.54"H x 5.55"W x 1.7"D (90H x 140W x 45mmD)
Weight:	13.7 oz (398g)
Base Dimensions:	1.7" x 5.12" (45 x 130mm)
Orifice Size:	0.4" x 2.0" (10 x 50mm)
Spot Sizes:	Approx. Spot Size 5 x 5mm @ 20° / 0.2" x 0.2" @ 20° Approx. Spot Size 20 x 9mm @ 60° / 0.8" x 0.35" @ 60° Approx. Spot Size 40 x 9mm @ 85° / 1.5" x 0.35" @ 85°



Resolution: 0.1 GU (0-100GU)
1GU (>100GU)

Models



SOLOGloss®

The 60° single-angle instrument of the glossmeter range. Preferred instrument for measurements in the semi-gloss range. Suitable for most applications. Light source and detector are positioned under an angle of 60° of the surface to be measured.



DUOGloss®

A versatile instrument that combines the 20° and 60° angle into one gloss meter. The 20° angle is ideal for measurements in the high-gloss area while the 60° covers the semi-gloss range.



POLYGloss®

The top of the glossmeter range is the triple angle instrument. Besides a 20° and 60° measuring angle the PolyGloss is also equipped with a 85° measuring angle thus covering the entire gloss-spectrum. The 85° is for low gloss levels (high diffuse reflection) or matte surfaces.*

*(Depending on the model the instrument can be set to measure and display just one or several measurement angles simultaneously.)*The PolyGloss will be available early in 2013*

Applications





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and ergonomic shape make it ideal for all day use on a production line. However the high level of accuracy equals or exceeds most bench gloss meters making it a perfect fit for high demand laboratory applications.

Yacht and boat builders

Paint and coatings

Automotive

Furniture

Military goods

Finishing

And many more...

Research and development

Leather

Plastics

Special Care & Safety Precautions

- Though robust in design, this instrument is precision-machined. Never drop it or knock it over
- Always clean the instrument after use.
- Clean the instrument using a soft dry cloth. Never clean the instrument by any mechanical means such as a wire brush or abrasive paper. This may cause permanent damage, just like the use of aggressive cleaning agent.
- Do not use compressed air to clean the instrument.
- Always keep the instrument in its case when not in use.
- Annual calibration recommended.
- Avoid using it in over-high or over-low temperature environment
- Avoid humidity

Display Features

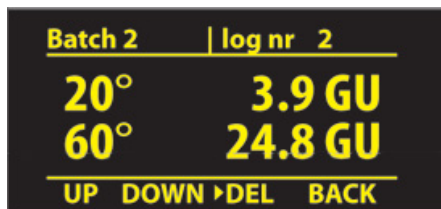




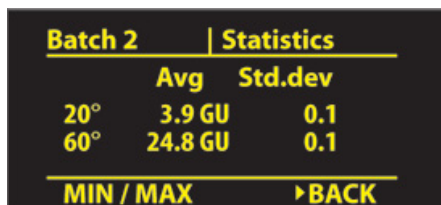
Data Logging - All TQC Glossmeters are equipped with an extensive memory of max 2000 measurements which can be organized in 8 different batches. The name of each batch can be programmed into the instrument in order to allow data retrieval at a later stage.



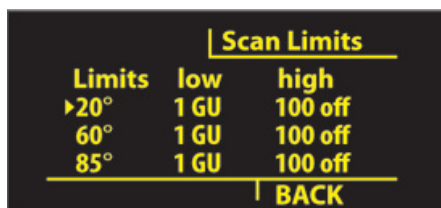
Date Time Stamp- The internal clock and calendar provides each stored measurement with a date/ time stamp. A choice of four different date formats is available.



Data Handling - Via a "plug and play" USB interface the measuring data can be downloaded to your PC. Scrolling through a batch with the Up and Down function shows individual data directly on the instrument's display. It is possible to delete individual false measurements directly from the instrument's data base. Batches can be cleared one by one or the entire memory can be emptied in one action. (See section "Ideal Finish Analysis Software.")



Statistics - Of each batch statistical data can be observed on the Gloss meter's display. The instrument shows minimum and maximum values, average and standard deviation.



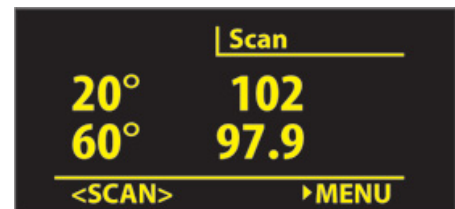
Limits/Thresholds - When measurements have a specific specification to meet, it is possible to set High and Low limits. An audible and visual alarm indicates when measurements are off limits operating as a pass/fail option. Depending on the type of TQC Glossmeter individual limits can be set for each measuring angle.



Power Saving - The instrument utilizes low power consuming LED light sources and a battery friendly OLED display. A full set of batteries has a 10,000 reading life expectancy. However, in order to get the maximum operational life from the batteries the instrument is equipped with an adjustable "auto power off" function which can be set by the user between 1 and 59 minutes. Power is provided by two standard AA batteries.



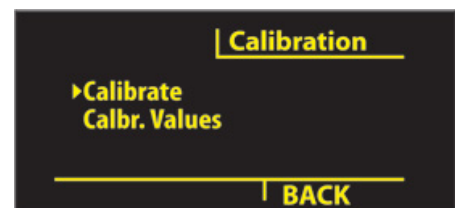
Languages - The instrument is designed for optimal user comfort. Use of a manual is hardly required due to the intuitive menu driven user interface. To make life even easier the TQC glossmeter comes in a wide selection of languages. Standard languages are English, German, French, Spanish and Italian but the number of languages will grow over time.



Scan Mode - Keeping the "Scan button" pressed down allows the glossmeter to measure continuously at a rate of approximately 70 readings per minute. If selected, the readings will be stored in the instrument's memory.



Login Protection - To prevent unwanted change of settings by unauthorized users certain functions can be protected with a Login Code. The protection can be activated or deactivated by choice. This code is user programmable. Instrument set-up, limit changes, delete readings or clear memory are all protected by the selected code.



Calibration - The protective holder has an integrated calibration standard for field calibration.



TQC glossmeters are supplied as standard with the powerful IDEAL FINISH ANALYSIS evaluation and analysis software. Without any extra cost a user can utilize the software to create reports including graphs and tables, comprehensive statistics and SP-calculations. Trend, Gaus and many other statistical data sets are possible within the software.

IDEAL FINISH ANALYSIS is TQC's master data handling program that works with an array of TQC instruments such as CurveX oven profiling dataloggers, Dew- Check climate gages and various coating thickness gages.

Research ^

The science behind the Glossmeter

Glossmeter development starts with an understanding of the basic principle of gloss. Surface textures, translucency and color all influence the visual perception of a surface but also influence the fine optics of the glossmeter. Microscale surface deformations cause scattering of light and divide it into specular and non-specular. This is the fine threshold where the TQC glossmeter is able to determine the gloss at the highest accuracy level.

Sending and receiving

To determine the best light source and detector setup components from suppliers all over the world have been tested. Spectral sensitivity, stability and linearity all proved to be exceptionally stable using the TQC glossmeter.

Standardization

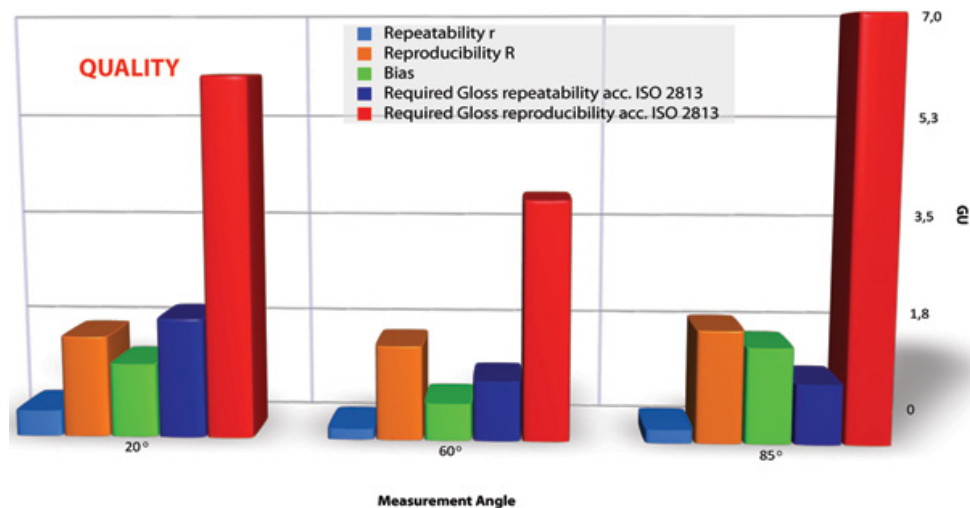
In order to guarantee the TQC glossmeter to be one of the most stable meters available and fulfill all the demands of the ASTM, DIN and ISO standards, TQC joined all of the standardization bodies and are actively involved in testing criteria relating to the standards ensuring the highest test of conformity.

Precision engineering

In order to get the best stability the TQC glossmeter's unique double frame system has been engineered with the highest precision. Carefully controlling the interior of the light patch helps to give the TQC glossmeter robust and stable structure.

Ten thousands of readings

To assess the quality of the TQC glossmeter we took thousands of readings on certified substrates to test stability, reliability and durability. With or without shock testing the TQC glossmeter proved to have the ultimate level of performance.



Geometry - Measuring Angles for Different Applications ^

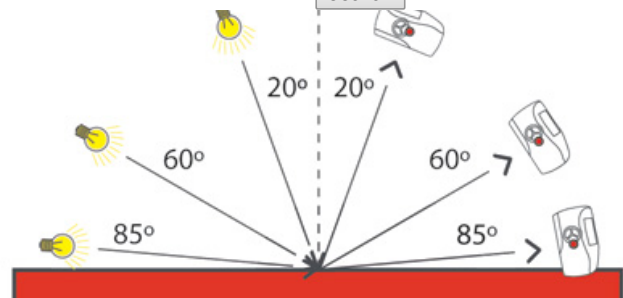


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surfaces where a 60° gloss meter typically indicates values higher than 70GU.

- 85° measuring angle for low-gloss surfaces where a 60° gloss meter typically indicates values lower than 10GU.

The measuring angle should always be mentioned in combination with a gloss value



Video



Prices



Prices subject to change ■ Prices listed in US dollars for domestic shipments within US, Canada, & Mexico only ■ Export orders require quotations - click here for a quote ■ For more info call us 1-800-762-2478 or 954-946-9454.

Item Number	Item	Prices
<div style="border: 1px solid #ccc; border-radius: 10px; padding: 2px 10px; display: inline-block;">What's Included</div>		
Glossmeter (20° / 60° / 85° depending on your model), 2 AA type batteries, Plastic case - Screwdriver, USB stick with Ideal Finish Analysis software, Micro fiber cleaning towel, USB cable		
GL-8100101	SOLOGloss 60° single angle Glossmeter	\$1,575.00
GL-8100201	DUOGloss 20°/60° Glossmeter	2,058.00
GL-8100301	POLYGloss 20°/60°/85° Glossmeter	2,579.00



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