

RHOPOINT *IQ*

20/60° • 20/60/85° GLOSSMETER

DOI METER

HAZE METER

GONIOPHOTOMETER



Improved performance in all gloss applications

Paints & Coatings Manufacturers and Applicators • Metal Polishers • Powder Coaters • Plastics Manufacturers • Inks and Printing • Additives Manufacturers • Automotive Industry • Wood Coatings • Coil Coaters • Yacht Manufacturers



Rhopoint IQ – The Glossmeter has evolved



RHOPOINT
INSTRUMENTS
TAKE A CLOSER LOOK AT SURFACE QUALITY

RHOPOINT IQ

★ THE RHOPOINT IQ IS THE ULTIMATE GLOSSMETER UPGRADE

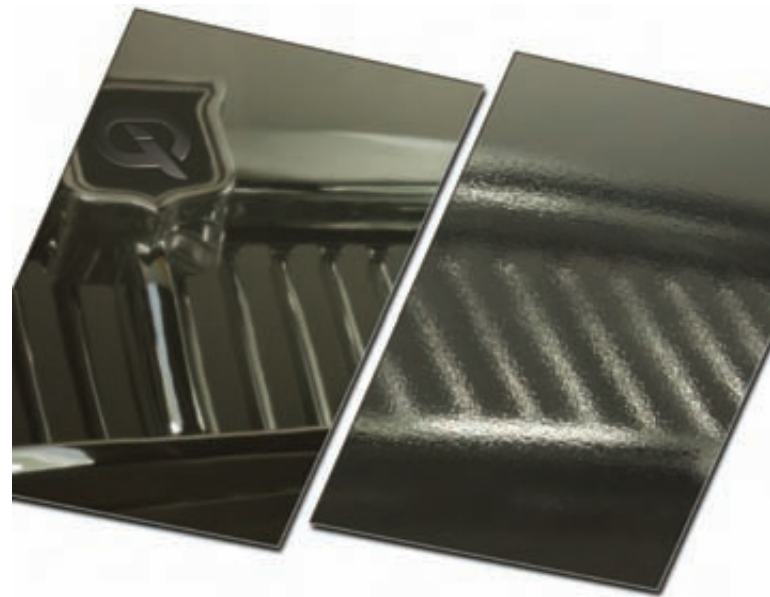
IQ GLOSS measurements are fully compatible with existing Novo-Gloss and Micro-Tri-gloss results.



Dualgloss 20/60° or Trigloss 20/60/85° versions are for maximum accuracy and resolution in all gloss applications.

THE RHOPOINT IQ QUANTIFIES SURFACE QUALITY PROBLEMS THAT ARE INVISIBLE TO A STANDARD GLOSSMETER

The Rhopoint IQ measures image quality, it is the only hand held instrument that profiles how light is reflected from a surface. Standard glossmeters only measure how much light is reflected and are not sensitive to effects which dramatically reduce appearance quality.



Surface texture can reduce appearance quality, without affecting gloss. These two test panels have identical readings when measured with a standard glossmeter.

THE RHOPOINT IQ MEASURES

20/60/85° GLOSS • HAZE • DISTINCTNESS OF IMAGE • RSPEC • GONIOPHOTOMETRIC CURVES

GLOSS – A measurement proportional to the amount of light reflected from a surface.

Geometry: For best results the correct measurement geometry should be chosen based on the reflectance of the material: Matt Finish 85°, Mid Gloss 60°, High Gloss and Metallics 20°.

Measurement Unit: GU

RSPEC – The peak gloss value over a very narrow angle.

Usage – RSPEC is very sensitive to small changes in texture and is used to identify subtle differences in surface smoothness.

Measurement Unit: GU

REFLECTANCE HAZE – An optical effect caused by microscopic textures or residue on a surface.

Visible Symptoms: Milky Finish apparent on surface, loss of reflected contrast, halos and patterns can be seen around reflections of high intensity light sources.

Causes: Poor dispersion, raw material incompatibility, additive migration, vehicle quality, stoving/drying/curing conditions, polishing marks, fine scratches, ageing, oxidisation, poor cleanliness/surface residue.

Measurement Unit: LogHU

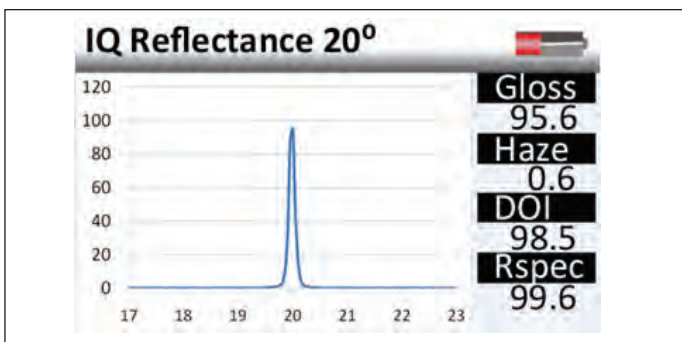
DISTINCTNESS OF IMAGE – A measure of how clearly a reflected image will appear in a reflective surface.

Symptoms of Poor DOI: Orange peel, brush marks, waviness or other structures visible on the surface. Reflected images are distorted.

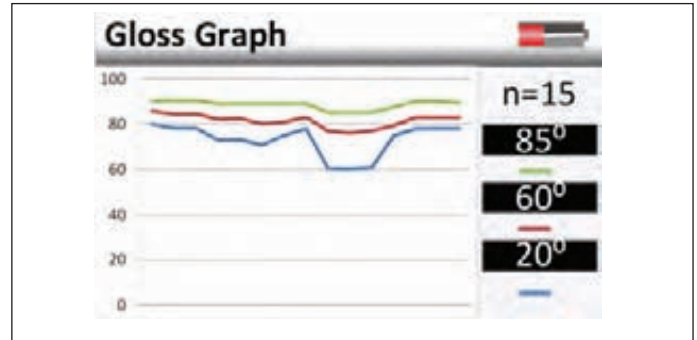
Causes: Application problems, incorrect coating flow, coating viscosity too high/low, sag or flow of coating before curing, incorrect particle size/distribution, overspray, improper flash/recoat time, inter coat compatibility, incorrect cure times and cure temperature.

Measurement Scale: 0-100, 100 is a perfect smooth surface.

GONIOPHOTOMETRIC PROFILE – The instrument displays surface reflectance profiles 17-23°. The shape of the curve describes how the light has interacted with the surface. Sharp curves close to the specular direction indicate smooth highly reflective surfaces.



An on screen goniophotometric profile shows the distribution of the reflected light



On screen graphs highlight trends in the measured batch

Different textures and distortions produce identifiably shaped profiles depending on their size and frequency. Full goniophotometric information can be downloaded to PC for further analysis and comparison, without the need for interface software.

ADVANCED FEATURES – for FAST easy measurement

- Full colour easy to read screen
- Onboard Statistics and Graphs
- USB results download to PC without the need to install software
- Results batching with user definable names
- Bluetooth compatible
- Pocket sized instrument with integrated tile holder
- Single button press to measure all parameters
- Fast measurement, < 2 secs.
- Fast and simultaneous measurement of all parameters
- Fully automatic calibration with tile detection and verification
- USB or mains rechargeable in 4.5 or 2.5 hours
- 17hrs+ continuous operation or 20,000+ readings
- On board memory for 999+ readings with full goniphotometric profiles
- Bluetooth serial output of measured values

BEST IN CLASS ACCURACY AND TRACEABILITY

- ISO 17025 UKAS calibration certificate
- Advanced standard verification system guarantees error free calibration.





GLOSS MEASUREMENT SPECIFICATION

20/60° or 20/60/85° Versions Available

20° Improved accuracy and resolution on high gloss & metallic samples (>70GU when measured at 60°)

60° Universal angle– all gloss levels

85° Improved Resolution for Matt Finishes (<10GU when measured at 60°)

Resolution 0.1 GU • Repeatability 0.2 GU • Reproducibility 0.5GU.

STANDARDS: ISO 2813, ASTM D523, ASTM D2457, DIN 67530, JIS 8741

- Conforms 60° & 85°
- Verified Performance 20°

RSPEC

Peak Specular Reflectance -20° +/- 0.09375°

GLOSS CALIBRATION STANDARD

Traceability: ISO 17025 Certified Laboratory UKAS Laboratory Number 0693, BAM Traceable

Uncertainty: 0.1 GU.

HAZE MEASUREMENT SPECIFICATION

Near Specular Reflectance measured at 18-19°, 21-22°

Switchable between Haze Units (HU) and Log Haze Units (LogHU)

Resolution 0.1 HU • Repeatability 0.2 HU • Reproducibility 0.5 HU

STANDARDS ASTM E430, ISO 13803

DOI MEASUREMENT SPECIFICATION

Resolution 0.1 • Repeatability 0.2 • Reproducibility 0.5

STANDARD, ASTM D5767



GONIOPHOTOMETRIC SPECIFICATION

Measurement range 14-26°

Angular Resolution 0.025°

Resolution 0.1 GU • Repeatability 0.2 GU •

Reproducibility 0.5GU

INSTRUMENT SPECIFICATIONS

Colour Touch Screen

- Adjustable Brightness 6 Button Touch Sensitive Interface

Construction

- All aluminium construction – enclosure, optics, standard holder
- Integrated calibration holder with in position detector

Statistical Analysis

- Max, Min, Mean, S.D.
- All measured Parameters

Graphical Analysis

- On board trend analysis
- Gloss and IQ Values

Power

- Rechargeable Lithium Ion
- >17 Hours operation
- >20,000 Readings/Charge

Operate from

- Internal Battery/USB/Mains Charger

Recharge Time

- USB 4.5 Hrs
- Mains Charger 2.5 Hrs

Memory

- 8 MB– >999 Readings
- User definable batching

Data Transfer

- PC & MAC compatible
- USB Connection
- No software install required

Dimensions & Weight

- 65 x 140 x 50mm (H x W x D)
- 790g



Certificate no: FM 29741
ISO: 9001 – 2008



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