

www.rhopointinstruments.com

RHOPOINT 

- | 20/60° • 20/60/85° GLOSSMETER
- | DOI METER
- | HAZE METER
- | GONIOPHOTOMETER

www.gloss-meters.com



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.

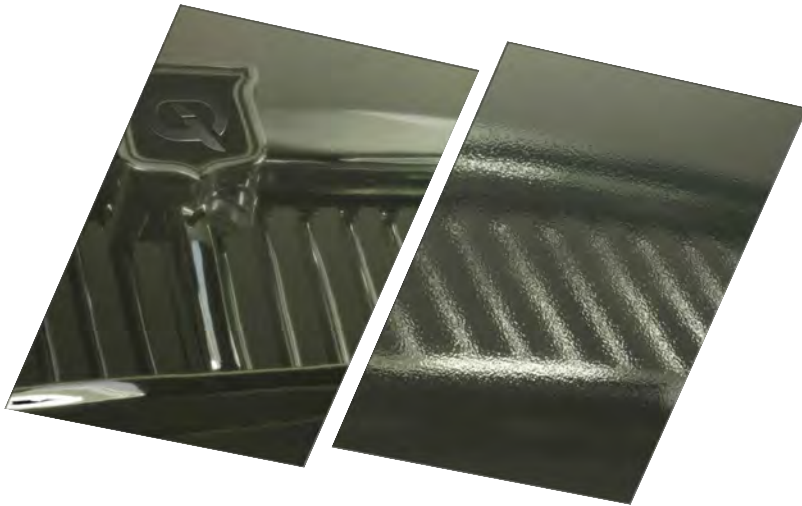


IMPROVED PERFORMANCE IN ALL GLOSS APPLICATIONS

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

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

The Rhopoint IQ measures reflected image quality; it is the only hand held instrument that profiles *how* light is reflected from a surface. Glossmeters are usually used to measure the “shininess” of a surface but are not sensitive to common effects which reduce appearance quality.



Orange peel dramatically reduces appearance quality without affecting gloss readings. These two test panels measure identically with a standard glossmeter, the Rhopoint IQ with RIQ/DOI measurement can quantify the differences.



Haze is a common problem associated with coatings and polished materials. Surfaces with haze have a “milky” finish with a “shallow” reflected image. This important characteristic is directly measured with the Rhopoint IQ.

THE RHOPOINT IQ MEASURES

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

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

Geometry: The correct measurement geometry should be used according to the sample finish – Matt: 85°, Mid Gloss: 60°, High Gloss: 20°.

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

Usage – is very sensitive to surface texture and can be used to identify subtle differences in smooth surfaces.

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

Visible Symptoms: A milky finish is apparent on the surface with a 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, oxidation, poor cleanliness/surface residue.

REFLECTED IMAGE QUALITY (RIQ) – RIQ is used to quantify effects such as orange peel and surface waviness. This new parameter gives higher resolution results compared to Distinctness of Image (DOI) measurement and better mimics human perception of surface texture, especially on high quality finishes such as automotive.

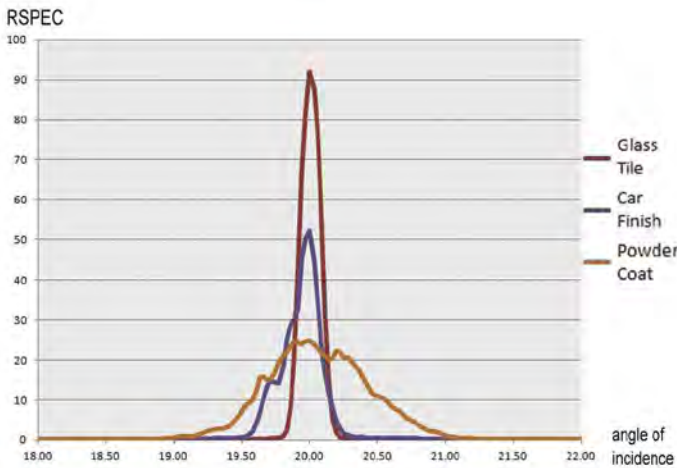
Symptoms of Poor RIQ: Orange peel, brush marks, waviness or other structures visible on the surface. Reflected images are distorted.

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.

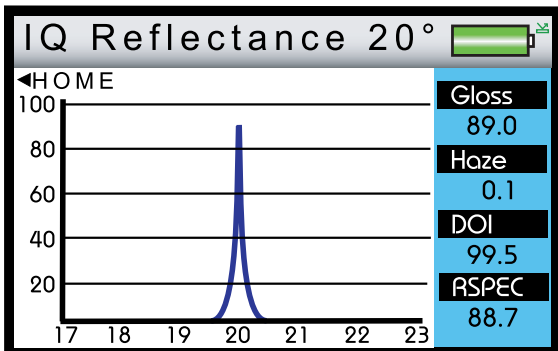
DISTINCTNESS OF IMAGE (DOI) – A measure of how clearly a reflected image will appear in a reflective surface.

Goniophotometric Curves

Different types of surface textures produce identifiably shaped reflectance profile. This goniophotometric data can be downloaded to PC for further analysis and comparison via the USB cable or Bluetooth Data Widget.

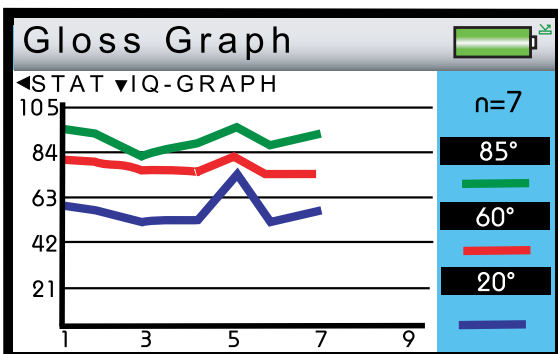


Goniophotometric Curves can instantly be created in Excel using the Bluetooth data widget



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

Trend Analysis



On screen graphs highlight trends in the measured batch

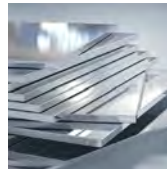
SAMPLE APPLICATIONS



Paints and Coatings



Yacht Manufacturers



Metal Polishers



Polished Stone



Smart Phone, Tablet PC and Laptop Covers



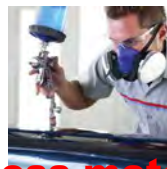
Wood Coatings



Automotive



Printing Ink



Automotive re-finish

THE ULTIMATE GLOSSMETER UPGRADE

SAMPLE APPLICATIONS



Powder Coating



Automotive Coatings



Furniture




Plastics Industry

DATA TRANSFER

Rhpoint Data Widget – A windows app that allows results to be instantly transmitted to any PC package such as Excel, Word, SPC programs etc.

	1	2	3	4	5	6
DATE	05/10/2012	05/10/2012	05/10/2012	05/10/2012	05/10/2012	05/10/2012
TIME	11:52:20	11:52:25	11:52:30	11:52:36	11:52:41	11:52:47
20°	87.2	87.3	87.1	87.1	87.2	87.2
60°	92.6	92.6	92.6	92.6	92.6	92.5
85°	98.1	98.1	98	98.1	98	98
HAZE	0	0	0	0	0	0
LogHaze	0	0.6	0	0	0.6	0.1
DOI/RIQ*	99.8	99.8	99.8	99.8	99.8	99.8
RSPEC	87.2	87.3	87.1	87.1	87.2	87.2
CDiode	250	250	250	250	250	250
Calibrated	05/10/2012	05/10/2012	05/10/2012	05/10/2012	05/10/2012	05/10/2012
Serviced	12/09/2012	12/09/2012	12/09/2012	12/09/2012	12/09/2012	12/09/2012
S/N	1002322	1002322	1002322	1002322	1002322	1002322

USB Cable – Software free download of results and statistics, easy to add and change alphanumeric batch names.

Bluetooth Compatibility – transmit data to any smartphone, tablet or PC/MAC via B/T serial port. 

SPECIFICATIONS

GLOSS

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 0.1GU • Repeatability 0.2GU • Reproducibility 0.5GU

Measurement range: 20°: 0-2000GU
60°: 0-1000GU
85°: 0-199GU

STANDARDS: ISO 2813, ISO7668, ASTM D523, ASTM D2457, DIN 67530, JIS 8741

■ Conforms 60° & 85°

■ Verified Performance 20°

RSPEC

Peak Specular Reflectance: 20° +/- 0.099121

Measurement range: 0-2000GU

HAZE

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

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

Resolution 0.1HU • Repeatability 0.2HU • Reproducibility 1.5HU

STANDARDS, ASTM E430, ISO 13803

RIQ

Resolution 0.1 • Repeatability 0.2 • Reproducibility 0.5

Measurement range: 0-100

DOI

Resolution 0.1 • Repeatability 0.2 • Reproducibility 0.5

Measurement range: 0-100

STANDARD, ASTM D5767

GLOSS CALIBRATION STANDARD

Traceability: ISO 17025 Certified, BAM Traceable

Uncertainty: 1.1GU

INSTRUMENT SPECIFICATION

Operation

- Full colour easy to read screen
- Adjustable brightness 6 button touch sensitive interface

Construction

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

Measurement

- Single button push to measure all parameters
- Fast measurement
- Results batching with user definable names

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 defineable alphanumeric batching

Data Transfer

- Bluetooth
- PC & MAC compatible
- USB connection, no software install required

Dimensions & Weight

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

Languages



INCLUDED ACCESSORIES

- Calibration tile with ISO 17025 calibration certificate
- USB data cable
- Mini CD
 - Instruction manual
 - Bluetooth data app
 - Example Excel spreadsheets
- Instructional videos

EXTRAS

FREE EXTENDED WARRANTY

FREE LIGHT SOURCE WARRANTY

Guaranteed for the life of the instrument

CALIBRATION AND SERVICE

Fast and economic service via our global network of accredited calibration and service centres, please visit www.rhopointinstruments.com/support for detailed information



Certificate no: FM 29741
ISO 9001: 9001-2008



NORTH AMERICAN DISTRIBUTOR

Imbotec Group
1.866-IMBOTEC (462-6832)

Master Distributor & ONLY Authorized
US/Canada Calibration Center

