



www.rhpointinstruments.com

RHOPOINT 

- 60° GLOSSMETER
- DOI METER
- HAZE METER
- GONIOPHOTOMETER

The Rhopoint IQ GLOSS-HAZE-DOI-GONIOPHOTOMETER has been established as the reference instrument for measuring reflective appearance. In a single fast measurement it captures information about the gloss and texture on a sample surface.

Combined gloss, haze and orange peel (DOI/RIQ values) information has made the IQ essential for controlling appearance finish in the paints and coatings sector.

The Rhopoint ***IQ FLEX 60*** brings this technology to a new format specifically designed for the measurement of small surfaces and surfaces with a slight curvature.

DESIGNED FOR SMALL SURFACES

Conventional gloss instruments are best suited to large flat areas and test panels, as any curvature of the surfaces can cause measurement errors.

The small footprint of the ***IQ FLEX 60*** makes it more effective than a conventional glossmeter in measuring slightly curved surfaces. Its compact size and shape also allows access to difficult to reach areas.



THE RHOPOINT IQ FLEX 60 QUANTIFIES SURFACE QUALITY PROBLEMS THAT ARE INVISIBLE TO A STANDARD GLOSSMETER

The **Rhopoint IQ FLEX 60** 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 FLEX 60 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 Flex 60.

THE RHOPOINT IQ FLEX 60 MEASURES

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

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.

REFLECTANCE HAZE COMPENSATION – The instrument compensates for reflection from within the coating for highly reflective pigments, metallic coatings and speciality pigments, allowing the haze of **any** painted surface to be measured.

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.

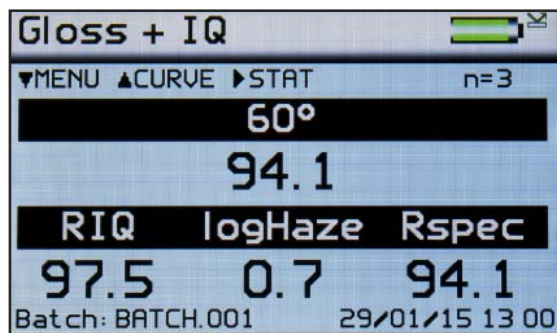
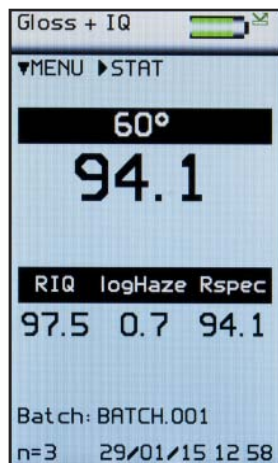
Causes: Application problems, incorrect coating flow, coating viscosity too high/low, sag or flow of coating before curing, incorrect particle size/distribution, overspray, improper flash/recoat time, inter coat compatibility, incorrect cure times and cure temperature.

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

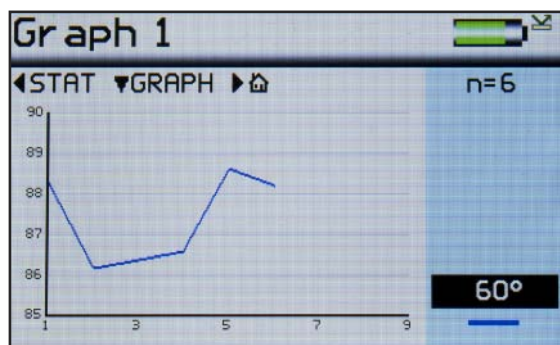


Measurement

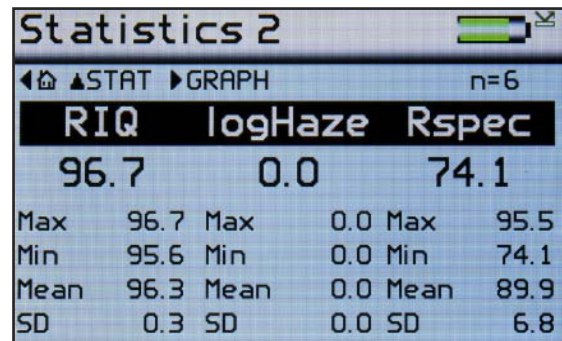
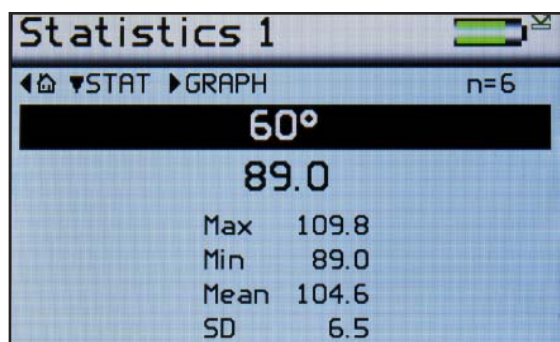
Fast measurement of all parameters. Full on-board statistics with graphical trend analysis and reporting.



Auto rotating measuring screen for ease of use in all environments



Graphical reporting for quick trend analysis.



Displays full statistics for the number of readings in the current batch.

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.

Easy Batching

User definable batch names and batch sizes for quicker and more efficient reporting.

Rapid Data Transfer

Software-free data transfer.

USB connection to PC instantly recognises the device as a drive location which facilitates the quick transfer of files using Windows Explorer or similar.

Direct Data Input Via Bluetooth

Instantly transmit measured readings directly to programs such as MS Excel on your PC / tablet / smartphone to greatly simplify the reporting process.



Power

2,500+ readings per charge. The instrument is rechargeable via USB / PC or mains.

SAMPLE APPLICATIONS



Mobile Phones



Tablet PC



Automotive Interior



Paints and Coatings



Automotive Coatings



Plastics Industry



Furniture



Powder Coating



Wood Coatings

INSTRUMENT SPECIFICATION

Operation

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

Construction

- All aluminium construction – enclosure, optics, standard holder

Measurement

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

Statistical Analysis

- Max, min, mean, SD
- All measured parameters

Graphical Analysis

- On board trend analysis
- Gloss and IQ values

Power

- Rechargeable lithium ion
- 6 hours operation
- 4,000+ readings per charge

Recharge Time

- Mains charger: 4hrs

Memory

- 8 MB = 999 readings
- User definable alphanumeric batching

Data Transfer

- PC compatible
- USB connection, no software installation required

Measurement Area

- 60° = 6mm x 6.39mm ellipse
- Remote control via USB / Bluetooth

Dimensions & Weight

- 150mm x 79mm x 34mm (without head) (H x W x D)
- 550g
- Packed weight approx: 1.5kg
- Packed dimensions: 180mm x 330mm x 280mm (H x W x D)
- Commodity code: 9027 5000

Languages



SPECIFICATIONS FLEX 60

GLOSS

60° Universal angle - all gloss levels

Resolution 0.1GU • Repeatability ± 0.2 GU

Reproducibility ± 0.5 GU

Measurement range: 60°: 0-1000GU

STANDARDS: Verified performance to ISO 2813,
ASTM D523

RSPEC

Peak Specular Reflectance: 60° $\pm 0.09905^\circ$

Measurement range: 0-1000GU

HAZE

Near Specular Reflectance measured at 57.8-59.0°, 61-62.2°

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

Resolution 0.1HU • Repeatability ± 0.5 HU

Reproducibility ± 1.5 HU

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

GLOSS CALIBRATION STANDARD

Traceability: BAM Traceable

Uncertainty: 0.4GU

INCLUDED ACCESSORIES

- Instrument with 60° Flex head
- Calibration tile with holder
- USB data cable
- Mini CD
 - Instruction manual
 - Bluetooth data app
 - Example Excel spreadsheets
- Instructional videos

ORDER CODES

Rhopoint IQ Flex 60

A6000-020

EXTRAS

FREE EXTENDED WARRANTY

CALIBRATION AND SERVICE

Fast and economical 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 9001:2008

LOCAL AGENT

