

Измерители блеска Rhopoint IQ-S Технические характеристики

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Rhpoint IQ-S – Close-Tolerance Glossmeter

Trigloss 20/60/85° close-tolerance IQ version for maximum accuracy and resolution in all gloss applications.



Introduction

The Rhpoint IQ-S is the ultimate glossmeter upgrade

The Rhpoint IQ-S was specially designed and built to match automotive interior gloss measurement standards. IQ-S gloss measurements are fully compatible with existing Micro-TRI-gloss-S results.

All IQ-S are close tolerance selected for maximum accuracy and comparability in all gloss applications.

The Rhpoint IQ-S not only measures gloss but also measures image quality and 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.

Advanced features – for FAST easy measurement

- Full colour easy to read screen with Pass/Fail indication
- Onboard Statistics and Graphs
- USB results download to PC without the need to install software
- Batch description with user definable names
- Bluetooth compatible
- Pocket sized instrument with integrated tile holder
- Fast measurement, <2 secs.
- Fast and simultaneous measurement of all parameters
- Fully automatic calibration with tile detection and verification
- 17hrs+ continuous operation or 20,000+ readings
- On board memory for 999+ readings with full

Best in class accuracy and traceability

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

Features

The Rhopoint IQ-S measures

20/60/85° Gloss • Haze • Distinctness of image • Rspec • Goniophotometric curves

GLOSS

A measurement proportional to the amount of light reflected specularly 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 on high gloss and metallic samples/mirrors.

Causes: Poor dispersion, raw material incompatibility, additive migration, vehicle quality, stoving/drying/curing conditions, polishing marks, fine scratches, ageing, oxidation, 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, with 100 being a perfect smooth surface.

REFLECTED IMAGE QUALITY (RIQ)

Like the DOI the RIQ value describes the quality of a surface in terms of how clearly visible an image is reflected.

Unlike the DOI the RIQ uses a much larger resolution that results in a much better correlation to the visual perception of the human eye. This is of a very high importance for high quality surfaces like e.g. car coatings.

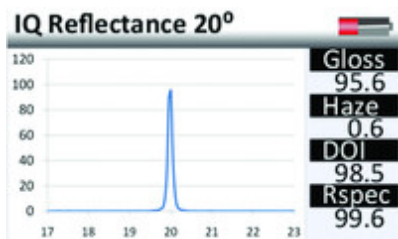
Measurement Scale: 0-100, with 100 being a perfect smooth surface

GONIOPHOTOMETRIC PROFILE

The instrument displays surface reflectance profiles 17-23° (larger range with software).

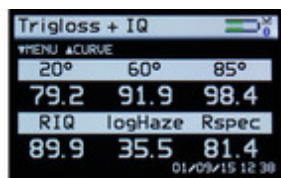
The shape of the curve describes how the light has interacted with the surface.

Sharp curves close to the specular direction indicate smooth highly reflective surfaces.



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

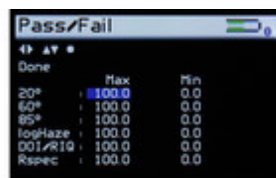
Different textures and distortions produce identifiably shaped profiles depending on their size and frequency. Full goniophotometric information can be downloaded to PC for further analysis and comparison, without the need for interface software.



Simultaneous measurement of all appearance parameters



On screen graphs highlight trends in the measured batch



Easy Pass/Fail Setup inside the instrument

Specifications

Rhopoint IQ-S 20/60 85°

GLOSS MEASUREMENT SPECIFICATION

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°)

Measurement range	0-10 GU	10-100 GU	100-2000 GU
Repeatability	±0.1 GU	±0.2 GU	±0.2 %
Reproducibility	±0.2 GU	±0.5 GU	±0.2 %
Resolution	±0.1 GU		
Measurement range	20°: 0-2000GU 60°: 0-1000GU 85°: 0-199GU		

STANDARDS: ISO 2813, ISO 7668, ASTM D523, ASTM D2457, DIN 67530, JIS 8741, JIS K 5600-4-7

- Conforms at 60° & 85°
- Verified performance at 20°

RSPEC

Peak Specular Reflectance	20° +/-0.09912°
Measurement range	0-2000GU
HAZE MEASUREMENT SPECIFICATION	
Near Specular Reflectance measured at 17.2-19°, 21-22.8°	
Switchable between Haze Units (HU) and Log Haze Units (LogHU)	
Resolution	0.1HU
Repeatability	±0.5HU
Reproducibility	±1.5HU
STANDARDS: ASTM E430, ISO 13803	
DOI MEASUREMENT SPECIFICATION	
Resolution	0.1
Repeatability	±0.2
Reproducibility	±0.5
Measurement range:	0-100
STANDARD: ASTM D5767	
RIQ MEASUREMENT SPECIFICATION	
Resolution	0.1
Repeatability	±0.2
Reproducibility	±0.5
Measurement range	0-100
GONIOPHOTOMETRIC SPECIFICATION	
Measurement range	14-26°
Angular Resolution	0.02832°
Resolution	0.1

INSTRUMENT SPECIFICATIONS	
Operation	Full colour easy to read screen with adjustable brightness and touch sensitive interface

Statistical Analysis	Max, Min, Mean, S.D. All measured Parameters
Graphical Analysis	On board trend analysis Gloss and IQ Values
Measurement Area	20°: 6 mm x 6.4 mm 60°: 9 mm x 13.5 mm 85°: 4.4 mm x 44 mm
Power	Rechargeable Lithium Ion >17 Hours operation >20,000 Readings/Charge
Recharge Time	Mains Charger 4 Hrs
Memory	999 Readings User definable alphanumeric batching
Data Transfer	Bluetooth PC compatible USB Connection (no software install required for CSV file transfer)
Dimensions & Weight	65mm x 140mm x 50mm (H x W x D) 790g Packed weight: 1.75kg Packed dimensions: 180mm x 330mm x 280mm (H x W x D) Commodity code: 9027 5000
Language	English, German, French, Spanish, Italian, Turkish, Japanese

INCLUDED ACCESSORIES

- ISO 17025 / UKAS calibration certificate (values at 20/60/85° = 100 GU as recommended in ISO 2813 / ASTM D523)
- USB data cable
- USB charger
- Quick start guide
- Positioning template
- Mini CD with:
 - Instruction manual
 - Novo-Gloss Multi Gauge software (Novo-Soft Multi Gauge activation key included)
 - Bluetooth data app
 - Example Excel spreadsheets
 - Instructional videos

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