



KONICA MINOLTA

Rhopoint IQ-S



- 20/60/85° Glossmeter
- DOI Meter
- Haze Meter
- Goniophotometer

Rhopoint IQ-S

The Rhopoint IQ-S Gloss, Haze & DOI Meter quantifies surface quality problems that are invisible to a standard glossmeter and profiles how light is reflected from a surface.

- The Rhopoint IQ-S can measure:**
- 20/60/85° Gloss
 - RSpec
 - Reflectance Haze
 - Reflected Image Quality (RIQ)
 - Distinctness of Image (DOI)
 - Goniophotometric Curves

Glossmeters are usually used to measure the “shininess” of a surface but are not sensitive to common effects which reduce appearance quality. IQ GLOSS measurements are fully compatible with existing Novo-Gloss and Micro-TRI-gloss results. Trigloss 20/60/85° versions are for maximum accuracy and resolution in all gloss applications.



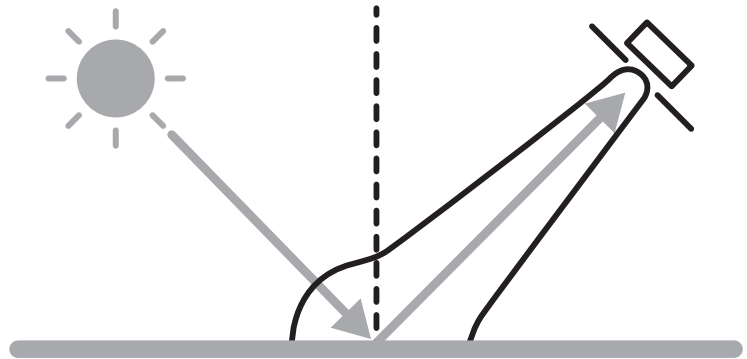
What does the Rhopoint IQ-S measure?

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°, highgloss: 20°



Gloss is measured by shining a known amount of light at a surface and quantifying the reflectance.



RSpec

The peak gloss measured over a very narrow angle.

Usage

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

Distinctness of Image (DOI)

A measure of how clearly a reflected image will appear in a reflective surface.

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



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 applications.

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.



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.





Why measure gloss?

Gloss is an aspect of the visual perception of objects that is as important as colour when considering the psychological impact of products on a consumer

It has been defined as 'The attribute of surfaces that causes them to have a shiny or lustrous, metallic appearance.' The gloss of a surface can be greatly influenced by a number of factors, for example the smoothness achieved during polishing, the amount and type of coating applied or the quality of the substrate.

Manufacturers design their products to have maximum appeal: from highly reflective car body panels to glossy magazine covers or matt finish automotive interior trim. This is especially noticeable where parts may be produced by different manufacturers or factories but will be placed adjacent to one another to create the finished product.

It is important therefore that gloss levels are achieved consistently on every product or across different batches of products.



Gloss can also be a measure of the quality of the surface, for instance a drop in the gloss of a coated surface may indicate problems with its cure, leading to other failures such as poor adhesion or lack of protection for the coated surface. It is for these reasons that many manufacturing industries monitor the gloss of their products, from cars, printing and furniture to food, pharmaceuticals and consumer electronics.

Specifications

20° Gloss

Range	0 - 100 GU	100 - 2000 GU
Repeatability	0.2 GU	0.2 %
Reproducibility	0.5 GU	0.5 %
Resolution	0.1 GU	
Measurement area	6mm x 6.4mm	
Standards	ISO 2813, ASTM D523, ISO 7668, ASTM D2457, DIN 67530, JIS Z 8741	

60° Gloss

Range	0 - 10 GU	10 - 100 GU	100 - 1000 GU
Repeatability	0.1 GU	0.2 GU	0.2%
Reproducibility	0.2 GU	0.5 GU	0.5%
Resolution	0.1 GU		
Measurement area	6mm x 12mm		
Standards	ISO 2813, ASTM D523, ISO 7668, ASTM D2457, DIN 67530, JIS Z 8741		

85° Gloss

Range	0 - 100 GU	100 - 199 GU
Repeatability	0.2 GU	0.2%
Resolution	0.1 GU	
Measurement area	4.4mm x 44mm	
Standards	ISO 2813, ASTM D523, ISO 7668, ASTM D2457, DIN 67530, JIS Z 8741	

Haze

Range	0 - 500 Log HU
Repeatability	1 Log HU
Reproducibility	10 Log HU
Resolution	0.1
Measurement area	6mm x 6.4mm
Standards	ASTM E430, ASTM D4039

	RSpec	DOI	RIQ
Range	0 - 2000	0 - 100	0 - 100
Repeatability	0.2%	0.2	0.2
Reproducibility	0.5%	0.5	0.5
Resolution	0.1	0.1	0.1
Measurement Area	6mm x 6.4mm	6mm x 6.4mm	6mm x 6.4mm
Standards	Rhpoint	ASTM E430	Rhpoint

Specifications

Instrument Information

Battery type	Rechargeable lithium ion
Operation	17+ hours
Readings per charge	20,000+
Memory	8MB, 2,000 readings
Operating temperature	15°C - 40°C (60°F - 104°F)
Operating humidity	Up to 85% (non condensing)

Dimensions & Weights

Dimensions	140mm (H) x 50mm (W) x 65mm (D)
Weight	390g

Included Accessories

Certificates	<ul style="list-style-type: none">• Instrument calibration certificate• Tile calibration certificate
Cables	<ul style="list-style-type: none">• USB data & mains cable• Wrist strap
USB containing:	<ul style="list-style-type: none">• Instruction manual• Bluetooth® data app• Example Excel spreadsheets• Novo-Gloss Multi Gauge software• Instructional videos
Calibration tile	High gloss calibration tile with cleaning cloth
Sample positioning template	
Quick start guide	

Supported languages in the device



Ethically Sustainable

The Rhopoint IQ-S is made from an all aluminium construction which means it can be recycled at the end of its long life.

Accessories Included

Quick start guide

Konica Minolta Sensing Europe B.V. is an authorized distributor of Rhopoint Instruments Ltd.

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Certificate No. JQA-QMA15888
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 KONICA MINOLTA, Inc., Sakai Site
 Product design, manufacture/manufacturing
 management, calibration and service



Certificate No. JQA-E-80027
 Registration Date: March 12, 1997
 KONICA MINOLTA, Inc., Sakai Site

Addresses and telephone numbers are subject to change without notice.
 For the latest contact information, please refer to the KONICA MINOLTA Worldwide Offices web page: www.konicaminolta.com/instruments/network

