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Test instruments for  
surface quality



**Rhoint Instruments Ltd.**  
is a member of the  
**Rhoint Group**

# A revolution in appearance measurement



## Optimap2<sup>PSD</sup>

## Complete surface analysis

Optimap2, the unique portable solution for surface inspection, allows rapid large area measurement and analysis of all types of coated or uncoated surfaces. Powerful on-screen functionality includes cross-sectional viewing allowing detection and characterisation of common surface irregularities including defects and waviness. In quality control, inferior surface evaluation methods are still commonplace.

Many methods are subjective, time consuming and lack definition. Modern consumers demand high quality products with surface finishes that are homogenous and free from defects.

The Optimap2 provides a unique solution to these measurement challenges providing quantifiable data for improved production control.

### Sample applications for the Optimap2 PSD



Paints & coatings



Yacht manufacturers



Metal Polishers



Polished Stone



Smart phone, tablet PC and laptop covers



Wood coatings



Automotive



Aircraft



Automotive re-finish

# Reflected image quality measurement

RHOPOINT 



Multi-angle gloss,  
haze, distinctness  
of image meter

Using patented technology, the Rhopoint IQ provides a unique solution for the measurement of haze and orange peel. Although visible to the naked eye they are not detected by a standard glossmeter.

By measuring the quality of the reflected image it is the only hand held instrument that truly profiles how light is reflected from a surface.

In one quick and easy operation the IQ not only measures gloss at three angles but also measures haze, DOI (distinctness of image) and RSPEC (specular reflectance) providing a detailed analysis of the image forming quality of the surface.

## Sample applications for the Rhopoint IQ



Paints & coatings



Yacht manufacturers



Metal Polishers



Polished Stone



Smart phone, tablet PC and laptop covers



Wood coatings



Automotive



Printing ink



Automotive re-finish

# Characterise surface quality of small areas

RHOPOINT 



20° gloss, haze & distinctness of image meter

The Rhopoint IQ FLEX 20 brings gloss, haze and distinctness of image measurement to a new format. It is specifically designed for small areas and curved surfaces that cannot be accurately measured with traditional glossmeters.

different applications and provide reduced measurement areas as low as 2mm.

To increase the repeatability of curved surface measurement, alternative adaptor plates can be designed for specific samples.

The Rhopoint IQ FLEX 20 can be customised with magnetically attached adaptor plates. These can be easily interchanged for

## Sample applications for the Rhopoint IQ Flex 20



Yacht manufacturers



Plastics Industry



Curved surfaces



Tablet PC



Automotive Interior



Automotive



Mobile phones

# Low gloss measurement



## 60° glossmeter for low gloss surfaces

Designed specifically to measure the gloss of surfaces that cannot be measured using traditional glossmeters, the Novo-Gloss Flex 60 Glossmeter combines the functionality and reporting of an advanced glossmeter within an ultra lightweight remote measuring head.

The Novo-Gloss Flex 60 has been designed specifically to measure low gloss surfaces. It

features an additional measuring scale with a resolution 10 times greater than standard glossmeters. This increased resolution gives a far superior level of control of surface finish.

The Novo-Gloss Flex 60 complies to ISO 2813 and ASTM D523. Measurements are made with the instrument are compatible with traditional glossmeters complying to these standards.

### Sample applications for the Novo-Gloss Flex 60



Curved plastic parts



Automotive



Mobile phones



Automotive interior



Plastics industry

# Transmission Hazemeter



RHOPOINT  
NOVO-HAZE TX

Measure total  
transmission and  
haze

The instrument features an intuitive user friendly interface which minimises the test time and makes it an ideal choice for both QC and R&D.

Uncompromising design, high quality materials make the Novo-Haze TX the ideal choice for any laboratory or QA environment. At 50% of the price of the market leader for ASTM D1003 (CIE C) measuring instrument, the Rhopoint Novo-Haze TX represents huge savings without compromising measurement accuracy.



Viewed through  
material with  
low haze

Viewed through  
material with  
higher haze

# Imaging transmission appearance meter

RHOPOINT **id**



- Optical measurement of transparent materials that correlates to human perception



## Films

Blown and extruded films often exhibit unwanted directionality, an effect which reduces appearance quality and may reduce other important characteristics such as strength and barrier properties.

Directionality can be reduced or eliminated with optimised process parameters: Rhopoint ID-L can measure in-situ during set up and manufacture to improve the quality of film production.



## Rigid plastics

Rigid plastics are used to protect and transport goods, with their see-through qualities governed by formulation and process parameters (temperature, dwell time etc).

The Rhopoint ID-L with batch and quality control is an invaluable tool in the plastics development or manufacturing facility.



*Packaging showing variable air gaps between the product and protective film*

## Air gaps

Depending on the application, flexible packaging can be used in contact with, or with an air gap between, the protected item. Rhopoint ID is the only instrument on the market that can determine the final appearance of the packed item in these conditions.

# Accuracy in all gloss applications

**RHOPOINT**  
**NOVO-GLOSS™**

## Single, dual and trigloss glossmeters



Single, dual and trigloss glossmeters are high specification hand held instruments for measuring 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. Maintaining consistent gloss levels on every product or across different batches of a product is vital

for manufacturers seeking maximum appeal of their finished goods.

The advanced features of the instrument include user definable batches for more efficient measurement of multiple samples, direct data input via bluetooth into Microsoft Excel and pass/fail for easy identification of non-conformances.

### Sample applications for the Novo-Gloss range



Paints & coatings



Yacht manufacturers



Metal Polishes



Polished stone



Powder coating



Furniture



Smart phone, tablet  
PC and laptop covers



Wood coatings



Automotive



Printing ink



Plastics industry



Automotive  
re-finish



Automotive  
coatings

# Shade & opacity measurement

**RHOPOINT**  
**NOVO-SHADE DUO+**



Measure shade,  
opacity and  
cleanliness

The Novo-Shade Duo+ is a versatile solution for reflectometry measurement. Its standard configured geometry of 45°/0° allows objective measurements of the shade or opacity of a surface. In shade mode, applications include the measurement of colour fading in textiles and plastics, shade of paints, inks and coatings, chalking of paint, efficiency of detergents and bleaching agents, whiteness of recycled paper and the

cleanliness and oxidisation of metal surfaces. Whilst in opacity mode, applications include the measurement of the hiding power of paints, inks and coatings, transparency of plastic films and opacity of paper.

Its in-built automatic calibration ensures accurate measurements are guaranteed every time the instrument is used.

## Sample applications for the Novo-Shade Duo+, opacity and shade



Hiding power of  
paints, inks and  
coatings



Transparency of  
plastic film



Opacity of paper



Shade of paints,  
inks and coatings



Fading of textiles  
and plastics



Chalking of paint



Efficiency of  
detergents and  
bleaching agents



Whiteness of  
recycled paper



Cleanliness and  
oxidisation on  
metal surfaces

# Curved surface gloss measurement

## NOVO-CURVE™

### 60° bench glossmeter



The Novo-Curve™ is a unique bench top instrument designed for the gloss measurement of curved surfaces and small areas that are difficult to measure with standard glossmeters. The large sample platform allows hands free measurement by simply placing the item over the measuring aperture.

Four adjustable jiggig posts are also available to provide consistency in sample positioning. Statistical data is stored internally in the instrument memory and can be either viewed on screen or by downloading to PC using the Novo-Soft software supplied.

#### Sample applications for the Novo-Curve™



Automotive



Furniture



Ceramics



Medical and confectionery



Coins



Banknotes



Dental Research



Electroplating

# Test equipment for the packaging industry



## Plastics, films paper and board

Rhopoint Instruments manufacture the Hanatek branded test equipment for the flexible packaging industry. The products in the range are designed to increase packaging speeds and reduce raw material wastage.

All products conform to relevant ISO and ASTM standards and are manufactured in the UK in an ISO 9001 environment.

Instruments in the range include:

**Friction Testers:** Designed for testing static and dynamic coefficient of friction.

**Rub & Abrasion Tester:** Tests the rub resistance of inks and coatings.

**Carton Crease Testers:** Measure board stiffness, crease recovery, whole carton opening force and create custom crease profiles.

**Thickness Gauges:** Measure down to 0.01 $\mu$  resolution with fixed pressure to ASTM and ISO standards.

### Hantek Instruments



[Precision Thickness Tester](#)



[Carton Crease Proofer](#)



[Crease & Board Stiffness Tester](#)



[Carton Force Analyser](#)



[Advanced Friction Tester](#)



[Compact Friction Tester](#)



[Rub Resistance Tester](#)



[Melt Flow Indexer](#)



[Film Shrink Tester](#)

# Instruments for testing paints & liquid coatings



**RHOPOINT**  
**PAINTLAB+ ©**

## Liquid coating test instruments

Rhpoint Instruments manufacture the Paintlab+ branded test equipment for liquid coatings.

The viscosity product range starts with flow cups which conform to a variety of standards and also includes viscometers: Krebs, Cone & Plate and Viscomixer which are all supplied with integrated temperature monitoring

Calibration oils are available with UKAS / ISO 17025 certification.

The Rhpoint Minimum Film Forming Temperature (MFFT) can be found in the laboratories of many of world's leading coatings producers.

The Pfund cryptometer provides a quick measure of opacity of liquid coatings.

### Paintlab+ Instruments



[Minimum Film Forming Temperature Bar](#)



[Krebs Viscometer](#)



[Cone & Plate Viscometer](#)



[Viscomixer](#)



[Cryptometer](#)



[Flow Cups](#)



[Calibration Oils](#)

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