



Opacity



www.rhopointinstruments.com

RHOPOINT

NOVO-SHADE DUO+

Dual Function 45/0° Reflectometer

Measure

- Opacity
- Shade
- Cleanliness

RHOPOINT

NOVO-SHADE DUO+

The Novo-Shade Duo+ reflectometer has 3 distinct modes of operation each using the 0/45 geometry.



Measure the shade of a surface on a greyscale

Measure substrate opacity / hiding power

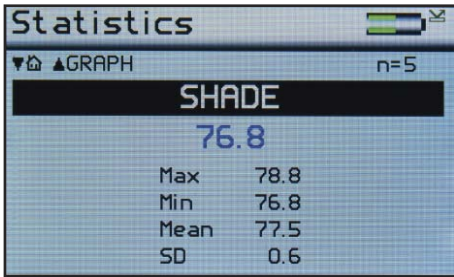
Measure substrate cleanliness

SHADE

Features



Fast measurement



On-board statistics



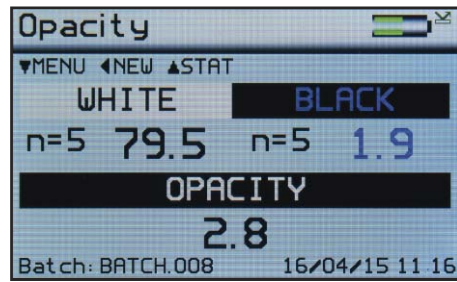
Trend analysis graph



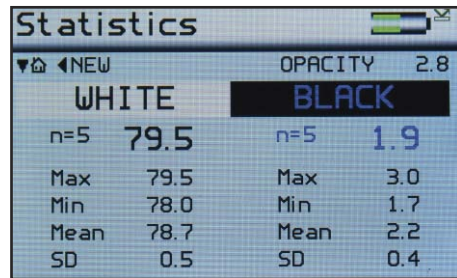
Single button push to make measurements.

OPACITY

Features



Fast measurement of all parameters
Automatic calculation of opacity



On-board statistics

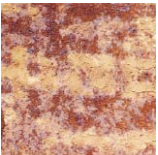


Measurements are made over a white substrate and then over a black substrate. Opacity is automatically calculated and displayed.

APPLICATIONS



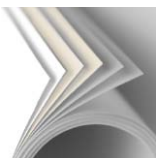
Shade of paints, inks and coatings



Chalking of paint



Efficiency of detergents and bleaching agents



Whiteness of recycled paper

APPLICATIONS



Hiding power of paints, inks and coatings



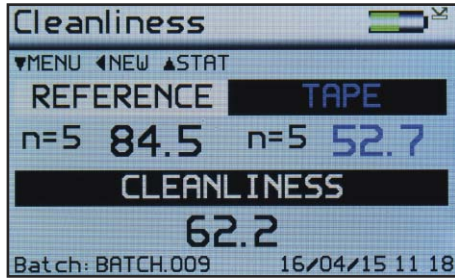
Transparency of plastic film



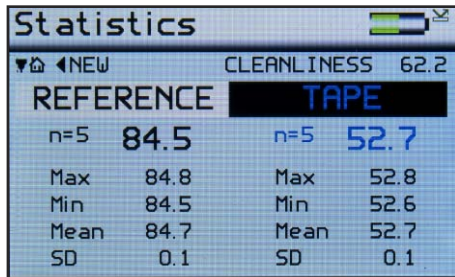
Opacity of paper

CLEANLINESS

Features



Fast measurement of all parameters
Automatic calculation of cleanliness



On-board statistics



Clear tape is pressed on the measurement surface, torn away and stuck onto white paper - For reference a clean piece of tape is also stuck on the same white paper.

Measurements are made of the reference material and then of the tape, cleanliness is calculated automatically.

APPLICATIONS

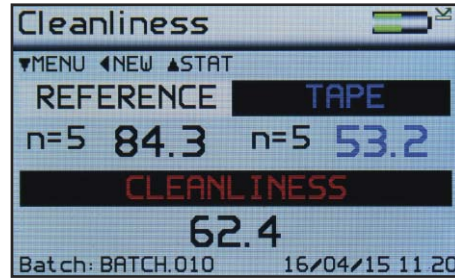


Cleanliness and oxidisation on metal surfaces

INSTRUMENT FEATURES

Pass / Fail

Easy identification and reporting of non-conformances.



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

20,000+ readings per charge. The instrument is rechargeable via USB/PC or mains.

Easy Batching (shade mode only)

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

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



RHOPOINT

NOVO-SHADE DUO+

SPECIFICATIONS

Statistical Analysis

- Max, min, mean, SD

Graphical Analysis

- On board trend analysis

Power

- Rechargeable lithium ion
- 17+ hours operation
- 20,000+ readings per charge

Recharge Time

- Mains charger: 4hrs

Standards

ISO 2814, 6504, BS 3900-D4, D7, ASTM E97, E1347, D4214
ASTM D2805, D589

Memory

- 8 MB = 999 readings
- User definable alphanumeric batching

Data Transfer

- Bluetooth
- PC compatible
- USB connection, no software installation required

Performance

- Resolution 0.1
- Repeatability 0.2%
- Reproduceability 0.5%
- Measurement area: 15mm x 10m ellipse
- Operating temperature 15 - 40° C (60 - 104° F)
- Humidity up to 85%, non condensing

Dimensions & Weights

- 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

Order Code: A4000-005

Languages: 

MEASUREMENT UNITS

Shade mode

- 0 = black – no reflectance
- 100 = brilliant white – full reflectance

Opacity mode

- 0 = completely transparent
- 100 = fully opaque

Cleanliness mode

- 0 = No change
- 100 = Maximum change

INCLUDED ACCESSORIES

- Calibration tile with certificate
- USB data cable
- Mini CD containing:
 - Instruction manual
 - Bluetooth data app
 - Example Excel spreadsheets
 - Instructional videos



EXTRAS

FREE EXTENDED WARRANTY

Register for a two year comprehensive guarantee.

FREE LIGHT SOURCE WARRANTY

Guaranteed for the life of the instrument.

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.



LOCAL AGENT

NORTH AMERICAN DISTRIBUTOR

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US/Canada Calibration Center

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