data sheet

elcometer

Elcometer 6014 Shade & Opacity Meter

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At a glance:

Measure shades of paints, inks and coatings as well as transparency and opacity

Continuous read feature for quickly checking large surfaces

Built-in statistics gives instant indication of batch quality

Can be used in accordance with:	
ASTM 97	ASTM 1347
ASTM D4214	ASTM D2805
BSI 13900-D4	D589
ISO 2814	ISO 6504

The Elcometer 6014 Shade & Opacity Meter is a low-cost dual function reflectometer for measuring shade and opacity using 45/0° geometry.

This 2-in-1 gauge is the perfect choice for any industry that needs to measure the shade and opacity of their products.

- **Low cost and portable:**
  The hand-held gauge is ideal for use in multiple areas along the production/finishing line.

- **Large, angled display:**
  The angled, 'enlarged' display is ideal for viewing from all angles.

- **Automatic calibration mode:**
  For accurate and fast calibration

- **Accurate testing:**
  Calculates opacity using up to six values over black and white for accurate readings.

- **Built-in statistics:**
  Statistical analysis for up to 25 batches provide instant indication of batch quality.

- **Record and save readings:**
  Readings can be stored on the gauge & downloaded to PC using the supplied software.

- **Continuous read feature:**
  Ideal for quickly checking large surfaces.

- **Long battery life:**
  Able to measure 3000 readings between charges.

- **Opacity charts:**
  Use in conjunction with opacity charts for repeatable testing.

Appearance

Appearance measurement is a way of putting numbers to characteristics of surfaces we see. The ability to independently quantify appearance allows for products to be similar whenever and wherever the product is manufactured or coated.

Shade is the measurement of darkness or lightness of a surface. Only shading is measured, irrespective of colour and is referred to as 'whiteness'.

Opacity is the degree to which a coating will obscure the surface to which it has been applied. Opacity is measured in a similar way to shade, however opacity, or hiding power, as defined by ISO 2814 involves measuring the whiteness of a known film of test material on both black and white substrate.

Elcometer offer the most comprehensive range of hand held instruments to measure the individual characteristics that generate the overall appearance of a material coating.

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Measurement units	Shade: 0% (black) to 100% (white)
	Opacity: 0% (transparent) to 100% (opaque)
Resolution	0.1%
Repeatability [a]	0.2%
Reproducibility [b]	0.5%
Memory capacity	200 readings
Measurement area	15 x 10mm (0.59 x 39") ellipse
Display	Liquid Crystal Display (LCD) 3½ digits
Display languages	English, French, Spanish, German, Italian and Dutch
Operating temperature	0°C to 50°C (32°F to 120°F)
Weight	470g (16.5oz)
Battery type	Dry Batteries: 4 x LR6 (AA)
Battery life	3000 readings
Part Number	K0006014M001
Packing list	Elcometer 6014 Shade & Opacity Meter, 4 x LR6(AA) alkaline batteries, Posi-Drive screwdriver, certificate calibration tile with protective box & cleaning cloth, calibration certificate, Novo-Soft™ software, USB cable, carrying case, operating instructions.

a. Repeatability – the variation given by a single instrument on an area of known gloss.
b. Reproducibility – the variation given by several instruments measuring an area of known gloss.

Spares & Accessories	
Posi-Drive Screwdriver	T99918585
Certified Calibration Standard	KT006014P001
USB Cable	T99920213
Calibration Tile Re-Certification	TCAL-R-6014
Elcometer 4695/3 Leneta Opacity Chart 2A	K0004695M003
Elcometer 4695/4 Leneta Opacity Chart 2C	K0004695M004
Elcometer 4695/6 Leneta Opacity Chart 3B	K0004695M006
Elcometer 4695/15 Leneta Opacity Chart 5C	K0004695M015
Elcometer 4695/36 Leneta Opacity Chart 14H	K0004695M036
Elcometer 4695/37 Leneta Opacity Chart 15H	K0004695M037

Related Products

Elcometer 407

The Elcometer 407 Statistical Glossmeter is a handheld gauge for measuring gloss at 20°, 60°and 85° and can be connected to the Elcometer Novo-Soft™ Software for further analysis and archiving.

Elcometer 406L

Elcometer 406L Statistical Mini Glossmeter has a memory of up to 200 readings and can be connected to the Elcometer Novo-Soft™ Software for further analysis and archiving. Single and dual angle versions are available.

www.elcometer.com

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