

Elcometer 407 Statistical Glossmeter

The Elcometer 407 Statistical Glossmeter measures gloss at three angles of reflection; 20°, 60°, and 85° and uses the internal memory to store readings.

At a glance:

- Triple angle measurement
- Measure any surface from gloss to matt
- Statistical readings can be stored internally

Can be used in accordance with:	
AS 1580-602.2	ASTM C 584
ASTM D 523	ASTM D 1455
BS DIN EN ISO 2813	ISO 7668
JIS Z 8741	

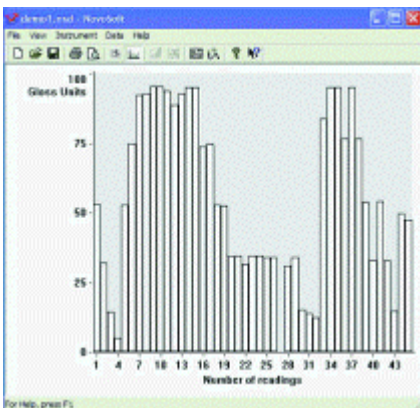
Elcometer 407 Statistical Glossmeter

The Elcometer 407 Statistical Glossmeter measures gloss at three angles of reflection; 20°, 60°, and 85° and uses the internal memory to store readings.

Gloss is measured by directing a constant power light beam at an angle to test surface and monitoring the reflected light. Different surfaces require different reflective angles. Gloss measurement is necessary to monitor the uniformity, compatibility, or possibly the deterioration of any protective gloss finish.

The Elcometer 407 Statistical Glossmeter is supplied with Novo-Soft™ software.

- **Triple Angle**
Measure at 20°, 60° and 85° angles.
- **Auto-ranging**
Internal calculation of maximum, minimum, mean standard deviation & coefficient of variation.
- **Multi Language**
Menus in English, French, German, Italian, Spanish, & Dutch.
- **Statistical Reading**
Up to 200 readings can be stored internally. The gauge can be connected to the Elcometer Novo-Soft™ Software for further analysis and archiving.



Elcometer Novo-Soft™ Software

This purpose designed software provides the user with an easy to use package for reporting purposes, archiving gloss measurements and further analysis.

Results page

Numerical data is displayed and may be tagged or edited.

Results graph

This enables display of all results in a simple graph of reading versus gloss.

Statistics graph

Data is displayed as a bar chart (histogram).

The screenshot shows a table with columns for 'Number', 'Value', and 'Comment'. The data is as follows:

Number	Value	Comment
2	32.50	
3	34.00	
4	8.50	
5	53.00	
6	75.00	
7	52.00	
8	93.00	
9	95.00	
10	92.00	
11	90.00	
12	88.00	
13	83.00	
14	86.00	
15	95.00	
16	74.00	
17	74.00	
18	53.00	
19	52.00	
20	34.00	
21	24.00	
22	22.00	
23	34.00	
24	34.00	
25	34.00	
26	34.00	
27	34.00	
28	-8.50	
29	20.00	

Appearance

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

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

Gloss

The ability of a surface to reflect light without scattering is known as Gloss. Gloss is measured by directing a constant power light beam at an angle to the test surface and then by monitoring the amount of reflected light. Different surfaces require different reflective angles. Elcometer Glossmeters cover the range necessary to measure almost any surface from high gloss to matt, from large to small surfaces – flat or curved.

Haze

Some materials appear to have considerable difference in gloss yet give comparable readings when measured with a glossmeter at one angle. These materials can be separated by measuring at a second angle and comparing the difference of the two readings. Haze is defined by ASTM D4039 as the difference between gloss at 60° and the gloss at 20°.

Shade

This is the measurement of darkness or lightness of a surface. Only shading is measured, irrespective of color, and is referred to as 'whiteness'. The test surface is illuminated at an angle of 45° and the intensity of scattered light at the perpendicular (0°), is measured on a grey scale where black is 0% and white is 100%.

Opacity

This 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 whiteness of a known film of test material on both a black (less than 5%) and a white (greater than 75%, less than 85%) substrate. A full range of opacity test charts are available – See Leneta Test Charts for further information.

Color

The ability of a material to absorb certain wavelengths of light and reflect others. For example a black material reflects no light across the complete color spectrum, whereas a pure white material reflects all light. All other colors reflect light at different points of the spectrum. Color is quantified by the material's Red, Green and Blue (RGB) values.

Functional Specifications

Accuracy: Reproducibility +0.5 Gloss Units (GU)

Resolution: 0.1 GU

Dimensions: 190 x 110 x 60mm (7.48 x 4.3 x 2.3")

Weight: 950g (33oz)

Power Supply: Dry Cells: 4 x LR6 (AA)

Part Number

J407-1

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