

## Elcometer 400 Novo-Curve™ Glossmeter for Curved Surfaces



### At a glance

A unique instrument designed for measuring small and curved surfaces.

Measurement area 2mm x 2mm.

Adjustable post system allows accurate product placement or can be used connect your own test fixture.

Increasingly, specifications and standards require an assessment of gloss. Gloss measurement is necessary to monitor the uniformity, compatibility, or possibly the deterioration of any protective gloss finish.

Using the 4 adjustable posts and the small measurement area, the Elcometer 400 is perhaps the only glossmeter designed specifically for measuring covered surfaces, small components and complex shapes. Continuous reading mode allows the rapid assessment of finish variation.

No need to wait for data to download, the LCD screen displays screen index, maximum temperature & graphical representation for each probe. Measures a whole range of products and designs - including:

- Paint finish
- Wood Varnish
- Automobile parts:  
Trim, steering wheel, dashboard
- Glazed Ceramics
- Frosted Glass.. and much, much more!

The Elcometer 400 Novo-Curve™ is a bench top instrument and parts to be measured are placed over the central aperture. A positioning facility allows repeatable measurements. Statistical analysis is available at the touch of a button and results may be downloaded to a PC via an RS232 interface.

The Elcometer 400 Novo-Curve™ measures over an area approximately 3% of the size of that utilised by a standard glossmeter (2mm x 2mm).

This instrument is designed to store and average up to 199 readings, so it is possible to "average" a larger area and by using a suitable sample population, it is possible to obtain representative results by statistical analysis.

### 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

## Technical Specification

<b>Geometry</b>	60° with auto - ranging
<b>Dimensions</b>	260 x 220 x 100mm (10 x 8.5 x 4")
<b>Weight</b>	2.5kg
<b>Memory</b>	199 Readings
<b>Interface</b>	RS232
<b>Power</b>	110 – 120V AC or 220 – 240V AC
<b>Measurement</b>	2 x 2mm (0.08 x 0.08")
<b>Part Number</b>	J400----1

Please select the appropriate mains power lead from the list below to be supplied with the Elcometer 400 Novo-Curve™:			
	UK 240V	EUR 220V	US 110V
Novo-Curve Mains Power Lead	T40016566	T40016565	T40016567

## Accessories



### Cylinder Measurement Jig

The detachable Cylinder Measurement Jig gives improved repeatability for cylindrical objects from 5mm radius up to 100mm.

Foam baffles exclude ambient light and hold the cylinder in optimum measurement position.

The Jig is fully adjustable and can be used for cylinders from 5mm -100mm radius.

### Features of the Cylinder Jig:

- Has been used for extruded plastic pipes, chromed metal work & designer writing pens
- Achieves repeatability as low as 0.5 GU on curved surfaces

**Part Number: T40019998**

## Shade

This is the measurement of darkness or lightness of a surface. Only shading is measured, irrespective of colour, 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.

## Colour

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 colour spectrum, whereas a pure white material reflects all of the light. All other colours reflect light at different points of the spectrum. Colour is quantified by the material's Red, Green and Blue (RGB) values.

## Related Products



Elcometer 6014

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.



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.



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 6012

Designed specifically to measure those materials which appear to have considerable difference in gloss yet give comparable readings when measured with a traditional glossmeter at one angle. Using the Elcometer 6012 Haze Meter, these materials can be separated by measuring at a second angle and comparing the two readings.

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