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inspection equipment

Elcometer 6085 Portable Sphere Spectrophotometer

The Elcometer 6085 is an affordable sphere spectrophotometer, designed to give fast, precise and accurate colour measurement information on materials ranging from paper and paint to plastics and textiles.

- Lightweight, compact, portable instrument
- Diffuse/8° sphere optical geometry
- Fixed 8mm aperture
- Large, easy-to-read high res graphical colour LCD display
- Opacity and colour strength measurement
- Simultaneous measurement of both specular component included and specular component excluded
- Rugged construction
- Reliable detent lock
- Rechargeable battery for portable use

STANDARDS:

AS/NZS 1580.601.3, ASTM C 609, ASTM D 2244, ASTM E 1164, ASTM E 308, ASTM E 313, BS 8493, DIN 5033-2, DIN 5033-3, DIN 5033-4, DIN 5033-7, DIN 6174, EN 12373-12, EN 13523-15, ISO 7724-2, ISO 7724-3, JIS K 5600-4-5, JIS K 5600-4-6, NF T36-006, NF X08-012-1, NF X08-012-2

Key Features

- **Measuring Functions and Indices**
  The Elcometer 6085 provides absolute and difference measurements for the following colourmetric systems. These values can be obtained from any of the nine illuminants with 2° or 10° observer angle: L*a*b*, DL*Da*Db*, L *C*h°, DL*DC*DH*, DE*ab, DECMC, DE CIE94 and XYZ. Whiteness and Yellowness per ASTM E 313-98.

- **Pass/Fail Mode**
  The instrument stores up to 1000 standards with tolerances for easy pass/fail measurement. A simplified green tick shown on screen shows a straight forward pass indication or a red cross to show a failed. Results are shown at a glance showing detailed colour comparison data for analyst.

- **Quick Colour Compare**
  A quick measurement can be taken to compare two colours. This allows the operator to take quality control readings in a time efficient manner without having to create tolerances or store data.

- **The Sphere**
  The Elcometer 6085's diffusing sphere is made of Spectalon®, a durable, highly reflective material designed to perform in a rigorous production environment. The diffusing material prevents degradation due to the flaking and chipping of the sphere wall material.

- **Opacity, Colour Strength and Shade Sorting**
  The instrument can measure opacity as well as three colour-strength options: chromatic, apparent and tri-stimulus calculations. The Elcometer 6085 also performs 555 shade sorting. This is an important consideration in the colour quality control of manufactured products involving plastics, painted or textile materials.

- **Texture and Gloss influence**
  To determine the influence of the specular component, the 6085 allows simultaneous measurement of both specular - included (colour) and specular-excluded (appearance).

- **User friendly Ergonomics**
  In addition to on-board programmes to assist the operator in the measurement process, the instrument itself is highly user-friendly. It is compact and lightweight with an ergonomic overmold design that provides a smooth and comfortable grip. The flip-back shoe is designed to withstand heavy use, and has a reliable detent lock. Read-outs are large and easy to see with a high res colour LCD screen. A rechargeable battery pack allows extended operation of the instrument.

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Technical Specification   C

Part Number	Description	Certificate
K6085M001	Elcometer 6085 Ci60 Portable Sphere Spectrophotometer	●
K6085M002	Elcometer 6085 Ci62 Portable Sphere Spectrophotometer	●
Measuring Geometrics	d/8°, DRS spectral engine, fixed 8mm aperture Simultaneous SPIN / SPEX	
Light Source	Gas filled tungsten lamp	
Illuminant Types	A, C, D50, D55, D65, F2, F7, F11 & F12	
Standard Observers	2° and 10°	
Spectral Range	400-700nm	
Memory	1,000 standards with tolerances, 4,000 samples	
Measurement Range	0 to 200% reflectance	
Measuring Time	Approximately 2 seconds	
Inter-Instrument Agreement (Ci60)	CIE L*a*b*: Avg. 0.40 ΔE^*ab based on average of 12 BCRA Series II tiles (specular component included) Max. 0.60 ΔE^*ab on any tile (specular component included)	
Inter-Instrument Agreement (Ci62)	CIE L*a*b*: Avg. 0.20 ΔE^*ab based on average of 12 BCRA Series II tiles (specular component included) Max. 0.40 ΔE^*ab on any tile (specular component included)	
Short-term Repeatability[†]	Ci60 - 0.10 ΔE^*ab on white ceramic (standard deviation) Ci62 - 0.5 ΔE^*ab on white ceramic (standard deviation)	
Lamp Life	Approximately 500,000 measurements	
Power Supply	Removable battery pack; 7.4 VDC, 2400 mAh	
Measurements per Charge	1,000 measurements within 8 hour period	
Weight	1.05kg (2.32lbs.)	
Screen Display	3.2 inch backlit Colour Graphic LCD	
Dimensions	109 x 91 x 213mm (4.3 x 3.6 x 8.4")	
Packing List	Elcometer 6085 Ci60, calibration standards, calibration certificate for standards, AC adaptor, mains leads (UK & EUR), carry case & operating instructions	
Packing List	Elcometer 6085 Ci62, calibration standards, calibration certificate for standards, AC adaptor, mains leads (UK & EUR), carry case & USB cable, operating instructions	

Accessories

Part Number	Description
KT006085P001	Battery Pack
KT006085P002	External Battery Charger

● Certificate supplied as standard.   [†]Based on 20 measurements on a white tile

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