NEW

elcometer®
inspection equipment

Elcometer 500
Coating Thickness Gauge

Reliably measure up to 10mm of **coating thickness** on **concrete** & other similar substrates

- **Fast, accurate & repeatable readings**
- **Robust, ergonomic design; inspect all day, every day**
- **Can be used in accordance with ASTM D6132, SSPC PA9 & ISO 2808**
- **Field replaceable probe tips; maximise your productivity**

Download on the App Store

ANDROID APP ON Google play

available with Bluetooth® wireless technology

www.elcometer.com

Elcometer 500

Coating Thickness Gauge

The Elcometer 500 coating thickness gauge **accurately measures the thickness of coatings on concrete** and other similar substrates* - **non destructively**.

- Accurately measure up to 10mm (390mils) of coatings on concrete or other similar substrates‡
- Easy to read, user definable display with automatic screen brightness
- Store up to 100,000 readings in up to 1,000 alpha-numeric batches
- Rugged, intelligent probes with field replaceable tips, measure up to 10mm (390mils)

  C1 150 - 2,500µm (6 - 98mils)
  C2 750 - 10,000µm (30 - 390mils)

- Measure more than 60 readings per minute in standard mode and over 140 readings per minute in scan mode
- Rugged, dust & waterproof design equivalent to IP54, ideal for almost all environments
- USB & Bluetooth® data output to PC and Android™ or iOS mobile devices
- Ergonomic design, ideal for continuous use

STANDARDS:
ASTM D6132, SSPC-PA 9,
ISO 2808 Method 10

compatible with ElcoMaster®

available with Bluetooth® wireless technology

Made for iPod iPhone iPad

Android™

* Similar substrates include plasterboard, drywall, concrete block, brick, etc.

‡ Epoxy coatings, thickness on other materials may vary

Coating Thickness Gauge

Elcometer 500

Fast

Measuring over 60 readings per minute in standard mode and over 140 readings per minute in scan mode, the Elcometer 500 coating thickness gauge can significantly reduce your inspection times.

Reliable

The Elcometer 500 will only display the coating thickness reading if the signal strength indicator turns green, preventing false or incorrect readings.

If the coating thickness is outside the measurement range, the Elcometer 500 tells you on the display.

Intelligent

The Elcometer 500 measurement probes are supplied with user replaceable probe tips. If the tip is damaged or wears during use you can replace it and carry on.

The gauge even informs you when you need to change the probe tip, maximising inspection time.

Easy to Use

There is no need to set up gates, range values or know the thickness of the coating, simply select the coating material from the gauge library and start measuring.

Ergonomic

The Elcometer 500 gauge and intelligent probes have all been ergonomically designed for continuous use. No force is required to take a reading.

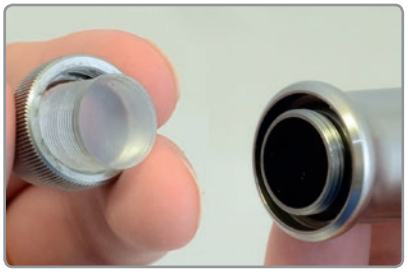
Rugged

Robust, ergonomic and sealed against dirt and water, equivalent to a rating of IP54, the Elcometer 500 has been designed to work in harsh environments, making it the ideal gauge for the laboratory or the job site.

Powerful

The Elcometer 500 wirelessly transmits readings, statistics and batches via Bluetooth® or via USB straight into your inspection application or into Elcometer's Mobile App ElcoMaster®, for instant report generation either at your desk or in the field, using your mobile.

Large easy to read display
and signal strength indicator



Ergonomic probes
with replaceable probe tips

Easy to use and minimum
set up required

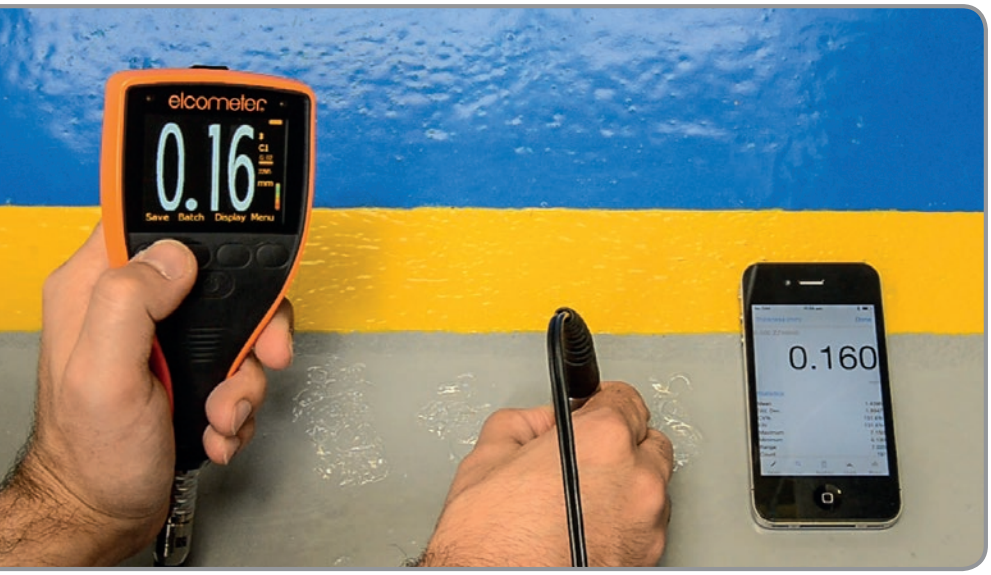
Rugged and reliable,
ideal for harsh environments

Elcometer 500

Coating Thickness Gauge

Create instant reports with ElcoMaster®

What you do with the collected data is just as important as taking the readings themselves.



ElcoMaster® is a fast, easy to use software solution for all your data management and quality assurance needs, preparing professional inspection reports at the click of a button.

Data transferred to ElcoMaster® includes:

- Date and time stamped readings
- Statistical values
- Limit values
- Readings above high limit
- Run charts & histograms
- Batch and gauge information
- Calibration information

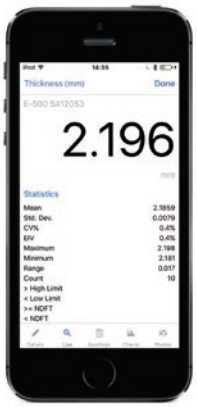
ElcoMaster® Mobile App users can;

- Store live readings directly on to a mobile device and save them into batches
- View graphs in real-time whilst carrying out the inspection
- Add notes to individual batch reading
- Add photographs of the test surface to each individual batch reading at the click of a button
- Plot individual readings on to a location map, photograph or diagram via the mobile device's internal GPS
- Inspection data can be transferred from mobile to PC for further analysis and reporting
- Generate instant .pdf[2] report for submission

Download on the App Store

ANDROID APP ON Google play

Connect
Connect gauge via Bluetooth® to see live readings directly on the phone and save them into batches.



Review
Review average, maximum and minimum readings instantly.

Manage & Print
Store all data; surface cleanliness, surface profile, climate or manual reports in easy to manage folders.

Photos & Notes
Add photos, notes and comments.

Image Collection
Use measurement location points on images to indicate the position for the next reading.[1]

Combine
Combine different inspection parameters (such as surface profile, climate, dry film thickness) together with images, notes and other project specific information into reports.

Collaborate
Share inspection data securely via the Cloud and collaborate on projects using the instant messaging feature in ElcoMaster®.

Send
Email inspection data from a mobile device to a PC for further analysis and reporting or transfer data via the Cloud.

Consistency
Stored material calibrations can be transferred to ElcoMaster® These can be sent to any Elcometer 500 gauge, anywhere in the world.

[1] Android™ devices [2] Available on iOS devices

The different modes of calibration

The Elcometer 500's user calibration adjustment procedures are fully traceable to National and International Standards.

1. Coating Material Library

The Elcometer 500's advanced measurement technology means that you no longer need to know how thick the coating should be or to set up measurement gates before taking a reading. Simply switch on the gauge, select the coating from the calibration library and take a reading - it is that easy.

2. Material Thickness Calibration

To obtain the greatest measurement accuracy, the Elcometer 500 can be calibrated using the known thickness of the coating to be measured.

If a sample of known thickness is not available, the Elcometer 500 Coating Calibration Mould (CCM) can be used to create a coating of known thickness which is traceable to both National and International Standards.

3. Sound Velocity Calibration

The Elcometer 500 can be calibrated by entering the speed of sound from the Product Datasheet available from the coating manufacturer.

Display Modes

Readings

Readings & Statistics

Readings & Run Charts

Readings & Bar Graphs

Readings & Differential

How to create a coating sample using the Elcometer 500 Coating Calibration Mould (CCM)

1. Place the Coating Calibration Mould (CCM) on a flat surface and completely fill the sample chamber with the test coating.

2. Using the plastic scraper, scrape over the coating allowing the excess to fall into the overflow chamber. Allow the coating to cure.

3. When fully cured, calibrate a ferrous coating thickness gauge on the side of the CCM then measure and record the dry film thickness at the centre of the coating.

4. Measure the same point using the Elcometer 500.

Enter the dry film thickness measurement and save it in the Elcometer 500's Coating Materials list.

Elcometer 500

Coating Thickness Gauge

Product Features	■ Standard	□ Optional
	Model B	Model T
Fast, accurate reading rate; *60+ readings per minute*	■	■
Repeatable & reproducible measurements	■	■
Easy to use menu structure; *in 30+ languages*	■	■
Tough, impact, waterproof & dust resistant; *equivalent to IP54*	■	■
Bright colour screen; *with automatic rotating display (0°, 90°, 180° & 270°)*	■	■
Scratch & solvent resistant display; *2.4" (6cm) TFT*	■	■
USB power supply; *via PC*	■	■
Test certificate & 2 year gauge warranty*	■	■
Ambient light sensor; *with adjustable auto brightness*	■	■
Automatic probe recognition	■	■
Gauge software updates[1]; *via ElcoMaster® software*	■	■
Data output	■	■
USB; *to computer*	■	■
Bluetooth®; *to computer, Android™ & iOS‡ devices*		■
Measurement units; *µm, mm, mils, inch*	■	■
Signal strength indicator	■	■
User selectable reading resolution; *Low & High reading resolution*	■	■
Display modes; *user selectable*		■
Readings	■	■
Readings & differential; *reading and the offset from a set nominal difference*		■
Bar graph		■
Live reading trend graph; *in batch mode*		■
Run chart; *trend graph of last 20 readings*		■
User selectable statistics;	■	■
Number of readings; n, Mean (average); $\bar{x}$, Standard deviation; σ, Highest reading; Hi, Lowest reading; Lo, Coefficient of variation; CV%	■	■
Nominal dry film thickness; NDFT, High & low limits; definable audible & visual alarms, Number of readings above high limit; Number of readings below low limit; Range; I		■
Multiple calibration methods with on-screen instructions; *in 30+ languages*	■	■
Material selection; *preset choice of materials or create own user defined materials*	■	■
Velocity entry; *direct entry of a material's sound-velocity*	■	■
1 Point; *using a coating sample of known thickness*	■	■
Calibration lock; *with optional PIN code unlock*	■	■
Gauge memory; *number of readings*		100,000
Number of batches; *with unique batch calibrations*		1,000
Alpha-numeric batch names; *user definable on the gauge*		■
Fixed batch size mode; *with batch linking*		■
Batch review graph		■
Delete last reading	■	■
Limits; *40 user definable audible & visual pass/fail warnings*		■
Live reading mode; *transfer of individual readings to external device*	USB	USB & Bluetooth®
Reading save function	■	■
Date and time stamp		■
Scan mode		■
ElcoMaster® software & USB cable	□	■
Protective case	■	■
Plastic transit case	□	■

* The Elcometer 500 is supplied with a one year warranty against manufacturing defects. Gauge warranty can be extended to two years via www.elcometer.com.
‡ Visit www.elcometer.com/sdk to find out how to integrate Elcometer's MFi certified products to your App.
[1] Internet connection required

Coating Thickness Gauge

Elcometer 500

Technical Specification

Part Number	Description	Certificate
A500C-B	Elcometer 500 Coating Thickness Gauge Model B	●
A500C-T	Elcometer 500 Coating Thickness Gauge Model T	●
A500-KIT1	Elcometer 500 Coatings on Concrete Inspection Kit	●
Operating Temperature	-10 to 50°C (14 to 122°F)	
Power Supply	2 x AA batteries (rechargeable batteries can be used)	
Battery Life	Alkaline: Approximately 15 hours Lithium: Approximately 28 hours	
Gauge Weight	161g (5.68oz) including batteries, without transducer	
Gauge Dimensions	141 x 73 x 37mm (5.55 x 2.87 x 1.46") without transducer	
Packing List	**Elcometer 500 Coating Thickness Gauge Model B & T** Elcometer 500 Coating Thickness Gauge, 4ml (0.14fl oz) bottle of probe tip oil, 120ml (4fl oz) bottle of ultrasonic couplant, 2 x AA batteries, protective case, transit case (Model T), wrist harness, 3 x screen protectors, ElcoMaster® software (Model T), USB cable (Model T), test certificate **Elcometer 500 Coatings on Concrete Inspection Kit** Elcometer 500 Model T Coating Thickness Gauge, C1 & C2 coating thickness probes, C1 & C2 probe measurement foils: 1, 2, 3 & 8mm (40, 80, 120 & 310mils), Elcometer 456 Model B Ferrous Integral Gauge, Elcometer 456 calibration foils: 0.5 & 1.5mm (20 & 60mils), 2 x coating calibration moulds, 120ml (4fl oz) bottle of ultrasonic couplant, 4ml (0.14fl oz) bottle of probe tip oil, transit case, ElcoMaster® software & USB cable	

Probe Range

Scale C1

T500-C1 Elcometer 500 Scale C1 Probe — Certificate ●

Range[1]: 150 - 2,500µm (6 - 98mils) Accuracy[2]: ±2% or ±10µm (±2% or ±0.4mil)

Resolution: Low: 10µm, 0.01mm, 1mil or 0.001" High: 1µm, 0.001mm, 0.1mil or 0.0001"

Scale C2

T500-C2 Elcometer 500 Scale C2 Probe — Certificate ●

Range[1]: 750 - 10,000µm (30 - 390mils) Accuracy[2]: ±2% or ±10µm (±2% or ±0.4mil)

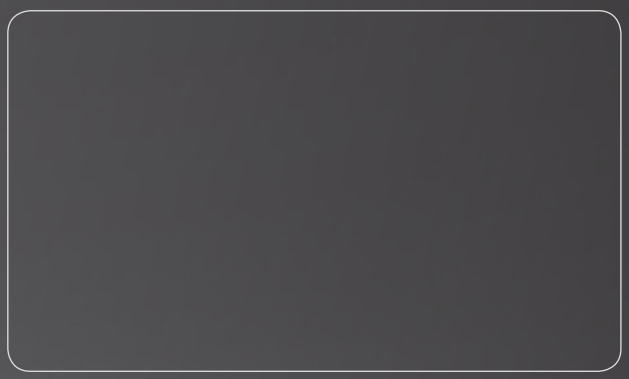
Resolution: Low: 10µm, 0.01mm, 1mil or 0.001" High: 1µm, 0.001mm, 0.1mil or 0.0001"

Accessories

Part Number	Description		
T50027602-1	C1 Replacement Probe Tip; Pack of 2	T50027602-2	C2 Replacement Probe Tip; Pack of 2
T50027604	Probe Tip Oil; 4ml (0.14fl oz) Bottle		
Part Number	**Description**		
T92015701	Ultrasonic Couplant; 120ml (4fl oz)	T92024034-7	Ultrasonic Couplant; 300ml (10fl oz)
T92024034-8	Ultrasonic Couplant; 500ml (17fl oz)	T92024034-3	Ultrasonic Couplant; 3.8l (1 US Gallon)
T92024034-9	Ultrasonic Couplant (High Temp); 60ml (2fl oz); *for use in high temperature environments up to 510°C (950°F)*		
Part Number	**Description**		
T99022255-13	C1 Foil Set: 1 & 2mm (40 & 80mils)	T99022255-13C	C1 Foil Set - Certified: 1 & 2mm (40 & 80mils)
T99022255-14	C2 Foil Set: 3 & 8mm (120 & 310mils)	T99022255-14C	C2 Foil Set - Certified: 3 & 8mm (120 & 310mils)
Part Number	**Description**		
T50027567-1	Elcometer 500 Coating Calibration Mould (CCM)		

● Test certificate supplied as standard

[1] Epoxy coatings, thickness on other materials may vary
[2] Whichever is greater



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Elcometer 500 Model T: Made for iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, iPhone 4s, iPhone 4, iPad Air 2, iPad mini 3, iPad Air, iPad mini 2, iPad (3rd and 4th generation), iPad mini, iPad 2, and iPod touch (4th and 5th generation).

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