elcometer®

Elcometer 500 Concrete Coating Thickness Gauge

Can be used in accordance with:
ASTM D6132, SSPC PA9 & ISO 2808 Method 10

Features

- Accurately measure up to 9mm of coatings on concrete or other similar substrates ǂ
- 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 9mm
    - C1: 150 - 2,500µm
    - C2: 750 - 9,000µm
- 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

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

Fast and accurate, the **Elcometer 500 Coating Thickness Gauge** takes repeatable and reproducible dry film thickness measurements of coatings on concrete up to 10mmǂ thick – without damaging the coating.

Taking over 60 readings per minute in standard mode and 140+ readings per minute in scan mode; the **Elcometer 500 Coating Thickness Gauge** allows users to inspect more coatings in less time. With a choice of intelligent, ergonomic probes, designed for continuous use and field replaceable probe tips you can inspect all day, every day.

The built-in signal strength indicator on the **Elcometer 500 Coatings on Concrete Gauge** prevents false or incorrect readings, as the gauge only displays the coating thickness measurement if the signal strength indicator goes green.

Robust, ergonomic and sealed against dirt and water, equivalent to a rating of IP54, the **Elcometer 500 Concrete Coating Thickness Gauge** has been designed to work in harsh environments.

Incredibly easy to use, the **Elcometer 500 Coating Thickness Gauge for concrete** can be used in accordance with ASTM D6132, SSPC PA9 & ISO 2808 Method 10.

Compatible with **ElcoMaster® Software** and **ElcoMaster® Mobile App**, individual coating thickness measurements can be transferred via USB or Bluetooth® to PC or a mobile device for analysis and instant report generation.

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Key Features of the Elcometer 500 Coating Thickness Gauge:

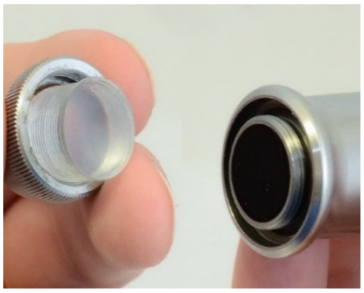
Fast

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.

Technical Specifications

Part Number	Description	Certificate
A500C-B	Elcometer 500 Coating Thickness Gauge Model B	•
A500C-T	Elcometer 500 Coating Thickness Gauge Model T	•
A500-KIT[1]	Elcometer 500 Coatings on Concrete Inspection Kit	•
Operating Temperature	-10 to 50°C	
Power Supply	2 x AA batteries (rechargeable batteries can be used)	
Battery Life	Alkaline: Approximately 15 hours Lithium: Approximately 28 hours	
Gauge weight	161g including batteries, without transducer	
Gauge Dimensions	141 x 73 x 37mm without transducer	

Probe Range

Scale C1		Certificate
T500-C1	Elcometer 500 Scale C1 Probe	•
Range[1]:	150 - 2,500µm	
Accuracy[2]:	±2% or ±10µm	
Resolution:	Low: 10µm, 0.01mm; High: 1µm, 0.001mm	

Scale C2		Certificate
T500-C2	Elcometer 500 Scale C2 Probe	•
Range[1]:	750 - 9,000µm	
Accuracy[2]:	±2% or ±10µm	
Resolution:	Low: 10µm, 0.01mm; High: 1µm, 0.001mm	

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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; η, Mean (average); x, Standard deviation; σ,	■	■
Highest reading; Hi, Lowest reading; Lo, Coefficient of variation; CV%		
Normal 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
[1] Internet connection required

Key for Technical Specifications
1 Epoxy coatings, thickness on other materials may vary
2 Whichever is greater
● Test certificate supplied as standard

Packing List

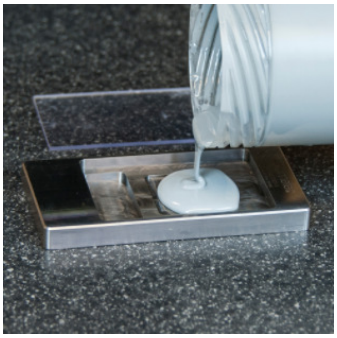
Elcometer 500 Coating Thickness Gauge Model B & T

Elcometer 500 Coating Thickness Gauge
4ml Bottle of Probe Tip Oil
120ml Bottle of Ultrasonic Couplant
2 x AA Batteries
Protective Case
Transit Case (Model T)
Wrist Harness
3 x Screen Protector, ElcoMaster® Software (Model T)
ElcoMaster® Software (Model T)
USB Cable (Model T)
Test Certificate

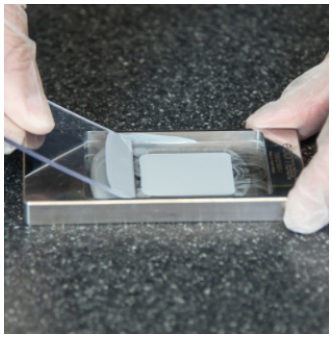
Elcometer 500 Coatings on Concrete Inspection Kit

Elcometer 500 Model T Coating Thickness Gauge
C1 & C2 coating thickness probes
C1 & C2 probe measurement foils: 1, 2, 3 & 8mm
Elcometer 456 Model B Ferrous Integral Gauge
Elcometer 456 calibration foils 0.5 & 1.5mm
2 x Coating calibration moulds
2 x Wrist Harness
6 x Screen Protector
120ml bottle of ultrasonic couplant
4ml bottle of probe tip oil
Transit case
ElcoMaster® software & USB cable

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.

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

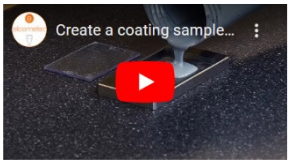
Videos - YouTube Videos

How to Measure Coatings on Concrete using the Elcometer 500 Coating Thickness Gauge (Click on the image to the left to view the video)

The Elcometer 500 Coating Thickness Gauge can also measure film thickness on substrates including plasterboard, drywall, concrete block, brick etc. without damaging the coating. The coating material library feature simplifies the coating inspection process; there is no need to set up gates, range values or known thickness of the coating. Just select the coating material from the gauge library and start measuring.

How to Calibrate the Elcometer 500 Coating Thickness Gauge

Incorporating state of the art ultrasonic measurement technology, each gauge can be calibrated in one of three ways - to a known thickness of the coating to be inspected; by setting the speed of sound of the coating; or by selecting the coating from a list of generic, or user defined coating materials. Once the gauge has been calibrated, the Elcometer 500 has a measurement accuracy of ±2%.



How to Create a Coating Thickness Sample for the Elcometer 500 using the Elcometer Coating Calibration Mould (CCM)

By using the Elcometer Coating Calibration Mould the Elcometer 500 calibration is traceable to national and international standards. The user defined coatings can be transferred into the Material Coatings Library within ElcoMaster® for use, at any time, on any Elcometer 500 gauge. Select the coatings from your list and transfer them to any Elcometer 500 gauge.

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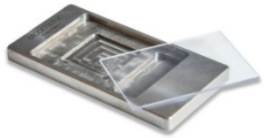
Accessories

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 Bottle
T92015701	Ultrasonic Couplant; 120ml
T92024034-7	Ultrasonic Couplant; 300ml
T92024034-8	Ultrasonic Couplant; 500ml
T92024034-3	Ultrasonic Couplant; 3.8l
T92024034-9	Ultrasonic Couplant (High Temp); 60ml;
	for use in high temperature environments up to 398°C
T99022255-13	C1 Foil Set: 1 & 2mm
T99022255-13C	C1 Foil Set - Certified: 1 & 2mm
T99022255-14	C2 Foil Set: 3 & 8mm
T99022255-14C	C2 Foil Set - Certified: 3 & 8mm
T50027567-1	Elcometer 500 Coating Calibration Mould (CCM)

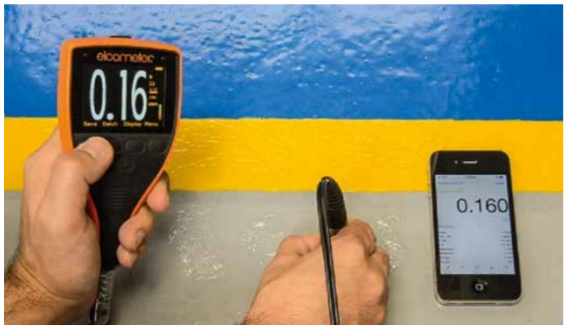


Create Instant Reports with ElcoMaster

It's not just taking measurements but what you do with the collected data that matters.
As inspectors can spend up to 30% of their working week producing reports, ElcoMaster® saves time and money by producing professional bespoke reports in seconds - even when out on site.

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



Download on the App Store

GET IT ON Google Play

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 .pdf2 report for submission

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