

## **How to measure coatings on concrete using the Elcometer 500 Coating Thickness Gauge**

Whilst the ability to non-destructively measure the coating thickness on metal substrates has been around since the first “Elco-meter” from the mid-1940’s, the technology for accurately and reliably measuring the dry film thickness of coatings on concrete, or other similar substrates, has for many years been through the use of destructive techniques.

Accurately and repeatably measuring the coating thickness on concrete or other similar substrates non-destructively has been limited – until now.

The Elcometer 500 Coating Thickness Gauge incorporates state of the art electronics and measurement technology to accurately, repeatably and reliably measure up to 9mm (355mils) of coatings on concrete, or other similar substrates.

With a measurement rate of 60 readings per minute in standard mode, and more than 140 readings per minute in scan mode - the Elcometer 500 Coating Thickness Gauge can significantly reduce your inspection times.

100,000 measurements can be saved in up to 1,000 user defined batches where they can be reviewed – either on the gauge, on your mobile device, or on your PC – using Elcometer’s free software application - ElcoMaster.

By using the ElcoMaster app the information can be wirelessly transferred from the gauge to your device, where instant reports can be generated and sent – via email or the cloud – to and from anywhere in the World - bringing your office to the jobsite.

The Elcometer 500's advanced measurement technology means that you no longer need to know how thick the coating should be before taking a reading, and you don't need to set any measurement gates or range values. Simply switch on the gauge, select the coating from the calibration library, and take a reading – it is that easy.

In order to avoid false, or incorrect readings, the gauge will only display the coating thickness if the signal strength indicator is in the green. And if the coating thickness is outside the measurement range, the Elcometer 500 will tell you.

The Elcometer 500 measurement probes have been ergonomically designed for constant use and don't need any force to be applied to take a reading. The probes come with user replaceable probe wear tips, so as the probe tip wears during use, the probe itself is not damaged. In fact, the gauge will even tell you when you need to change the probe - maximising inspection time and minimising any costly repairs or replacements due to wear or damage.

Robust, ergonomic and sealed against dirt and water 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.

In addition to the standard reading screen, there are a range of displays such as selected statistics, bar graphs, run charts, and the difference between a pre-defined target value and the actual reading.

You can also set maximum - and minimum measurement limits which will visually and audibly notify you when the film thickness is out of specification.

Whilst every gauge is pre-calibrated to work on a number of generic coatings, to obtain the greatest measurement accuracy, the Elcometer 500 can be calibrated using a known thickness of the coating to be measured. If one is not available, Elcometer's Coating Calibration Mould (CCM), can be used to prepare a sample. Once the coating is fully cured and its thickness recorded, the Elcometer 500 can be calibrated to your coating.

Once a coating has been measured, the calibration can be stored, both within the gauge and ElcoMaster – where it can be re-called for use at any time, on any Elcometer 500 Coating Thickness Gauge. This calibration process is traceable to both national and international standards.

For more information on the Elcometer 500 or any other Elcometer product, click on one of the links on-screen, or visit [elcometer.com](http://elcometer.com); and please don't forget to subscribe to the Elcometer Channel to be notified of any new videos.