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

When measuring coatings on concrete, or other similar substrates, using the Elcometer 500 Coating Thickness Gauge, calibrating your gauge ensures accurate, repeatable readings.

If the coating you're measuring is not already listed on your gauge's Coating Material list, and its speed of sound has not been included on the coating manufacturer's datasheet, then you can create your own calibration standard using the Elcometer Coating Calibration Mould - or CCM.

The Elcometer CCM consists of a steel mould which has a sample and overflow chamber, together with a clear plastic scraper. Simply place the Elcometer CCM onto a flat horizontal surface, and completely fill the sample chamber with the test coating, making sure that there is a slight dome or meniscus.

Slide the plastic scraper over the coating, allowing the excess to fall into the overflow chamber, and wait until the coating is fully cured, making sure that the CCM remains flat at all times.

If you are not preparing the sample in a laboratory, the best time to prepare a calibration sample is most likely to be when the coating is being applied, as you can take a sample of the material.

Once the coating is fully cured, take a ferrous coating thickness gauge, which has been calibrated using a foil (or shim) on the Elcometer CCM. Then measure and record the dry film thickness at the centre of the coating in the sample chamber.

Select the 1 Point Calibration method from the Elcometer 500's calibration menu. Take a measurement of the coating at the same central point as the coating thickness gauge, and enter the dry film thickness value when prompted. Then press 'Set'. By using the Elcometer CCM in this way the Elcometer 500 calibration is traceable to national and international standards.

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