

elcometer® **1542 Cross Hatch Adhesion Tester**

**Can be used in accordance with:
ASTM D 3359-B, ASTM D 3002, BS 3900-E6, BS EN ISO 2409,
DIN 53151, ISO 2409, NF T 30-038**



Simple but effective method for determining the adhesion of a large variety of coatings. The instrument is ideal for thin coatings on flat surfaces, available with three different spacings, corresponding to the thickness of layer to be tested:

- 1mm spacing - for coating thickness less than 60µm
- 2mm spacing - for coating thickness less than 120µm
- 3mm spacing - for coating thickness more than 120µm

Three instrument types are supplied separately or combined in a kit case with standardized brush and magnifier.

- Powerful cross cutter, with 8 cutting faces.
- Anodized aluminium handle, with a wheel for stable operation, ideal for test panels and thin coatings.
- Supplied with an adjustment gauge for accurate positioning of the cutter face.

Part Numbers

| Model | Description | Part Number |
|---------------------|--|--------------|
| Elcometer 1542/1 | Elcometer 1542 Cross Hatch Adhesion Tester 5 x 1mm | K0001542M001 |
| Elcometer 1542/2 | Elcometer 1542 Cross Hatch Adhesion Tester 5 x 2mm | K0001542M002 |
| Elcometer 1542/3 | Elcometer 1542 Cross Hatch Adhesion Tester 5 x 3mm | K0001542M003 |
| Elcometer 1542/4 | Elcometer 1542 Cross Cut kit 5 x 1mm | K0001542M201 |
| Elcometer 1542/5 | Elcometer 1542 Cross Cut kit 5 x 2mm | K0001542M202 |
| Elcometer 1542/6 | Elcometer 1542 Cross Cut kit 5 x 3mm | K0001542M203 |
| Elcometer 1542/7 | Elcometer 1542 Cross Cut kit 5 x 1,2,3mm | K0001542M204 |
| Accessories | Elcometer 1546 6 x 1mm Cross Hatch Blade | KT001542P001 |
| | Elcometer 1546 6 x 2mm Cross Hatch Blade | KT001542P002 |
| | Elcometer 1546 6 x 3mm Cross Hatch Blade | KT001542P003 |
| | Adjustment Gauge for Elcometer 1542 | KT001542F006 |
| | ASTM 03359 Adhesive Tape (2 rolls) | T1078894- |
| | ISO 2409 Adhesive Tape (2 rolls) | T1079358- |
| | Cross Cut DIN Brush | KT001542N201 |
| Cross Cut Magnifier | KT001542N202 | |

Cross Hatch Test Method - Elcometer 107 & Elcometer 1542

The cross hatch test is a method to determine a coating adhesion.

Having selected the appropriate cutter spacing - dependant on coating thickness (see technical specifications), make a cut of approximately 20 - 30mm long ensuring that enough force is used to cut all the way down to the substrate.

Make a similar length cut at a 90 degree angle with the first cut - again, ensure that the cut is all the way down to the substrate.

Brush the coating slightly with a soft brush or tissue to remove any detached flakes or ribbons of coating, then check the resulting cross-hatch pattern according to the Classification of Adhesion Test Results - as described in ISO or ASTM standards.

An adhesive tape, in accordance with ISO 2409 or ASTM D3359 can also be used prior to checking the result. Please refer to the appropriate standard. This tape is available from Elcometer.