

elcometer® 1542 Cross Hatch Adhesion Tester

Can be used in accordance with:

AS 3894.9, AS 1580.408.4, ASTM D 3359-B, BS 3900-E6, ECCA T6,
EN 13523-6, ISO 2409, ISO 16276-2, JIS K 5600-5-6, NF T30-038



The Elcometer 1542 is ideal for measuring the cross hatch adhesion of coatings up to 250µm on flat surfaces and test panels.

Measure on large or small panels by quickly changing the position of the guide wheel using the hexagonal wrench provided.

Each cutter wheel consists of 8 cutting faces. When one face becomes worn, rotate the cutting wheel to the next face.

The Elcometer 1542 cross hatch cutter is available with three different cutter spacings 1, 2 & 3mm for a range of coating thickness.

The Elcometer 1542 is available on its own (Basic Kit) or as a Full Kit which includes a brush, magnifier & ISO or ASTM adhesive tape. There are also Advanced Kits which include all three (1, 2 & 3mm) cross hatch adhesion testers, together with either ISO or ASTM adhesive tape.

Technical Specifications

Part Number	Description	Cutter Type	Coating Thickness	Certificate
K1542M001	Elcometer 1542 Basic Kit	6 x 1mm	0 - 60µm	o
K1542M002	Elcometer 1542 Basic Kit	6 x 2mm	50 - 125µm	o
K1542M003	Elcometer 1542 Basic Kit	6 x 3mm	121 - 250µm	o
K1542M001-I	Elcometer 1542 Full Kit - ISO Tape	6 x 1mm	0 - 60µm	o
K1542M002-I	Elcometer 1542 Full Kit - ISO Tape	6 x 2mm	50 - 125µm	o
K1542M003-I	Elcometer 1542 Full Kit - ISO Tape	6 x 3mm	121 - 250µm	o
K1542M001-A	Elcometer 1542 Full Kit - ASTM Tape	6 x 1mm	0 - 60µm	o
K1542M002-A	Elcometer 1542 Full Kit - ASTM Tape	6 x 2mm	50 - 125µm	o
K1542M204-I	Elcometer 1542 Advanced Kit - ISO Tape	6 x 1, 2, 3mm	0 - 250µm	o
K1542M204-A	Elcometer 1542 Advanced Kit - ASTM Tape	6 x 1, 2, 3mm	0 - 250µm	o

o Optional Calibration Certificate available.



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Packing List

Basic Kit:

- 1 x Elcometer 1542 Cross Hatch Tester¹
- cutter angle adjustment tool
- hexagonal wrench
- transit case
- user guide

Full Kit:

- Basic Kit plus:
- brush
- magnifier (x10)
- ISO or ASTM adhesive tape

Advanced Kit:

- 3 x Elcometer 1542 Cross Hatch Testers (1, 2 & 3mm)
- cutter angle adjustment tool
- hexagonal wrench
- brush
- magnifier (x10)
- ISO or ASTM adhesive tape
- transit case
- user guide

¹ 6 x 1mm, 6 x 2mm or 6 x 3mm cutter dependent on Part Number

Accessories

Part Number	Description	Methods			Certificate
		ISO	ASTM	AS	
KT1542P001	6 x 1mm Cross Hatch Cutter Wheel	•	•		o
KT1542P002	6 x 2mm Cross Hatch Cutter Wheel	•	•	•	o
KT1542P003	6 x 3mm Cross Hatch Cutter Wheel	•			o
K0001539M001	Adhesive Tape (1 roll) ASTM D 3359				
K0001539M002	Adhesive Tape (1 roll) ISO 2409				
T9998894-	Adhesive Tape (2 rolls) ASTM D 3359				
T9999358-	Adhesive Tape (2 rolls) ISO 2409				
KT1542N002	Magnifier (x10)				
T99913357	Cross Hatch Brush				

o Optional Calibration Certificate available.

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.



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