

## Elcometer 1500 Cylindrical Mandrels on a Stand



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A simple instrument for determining the elasticity, adhesion and cracking of dry paint on flat specimens, consisting of a mandrel support which also serves as a test stand.

Painted metal sheets, maximum 150mm (5.9") in length x 100mm (3.93") wide are manually and successively bent around each mandrel decreasing diameter until cracks appear.

### Elasticity & Resistance Deformation

Elasticity and resistance to deformation are part of the key physical properties required in the coatings industry today. Essentially there are three different test methods which are used to determine a coating's performance under different deformation conditions.

**Bend Test** : A coated metal sheet is bent over a cylindrical or conical mandrel and the coating observed for cracks and discoloration.

**Impact Test** : A coated metal sheet is placed beneath a falling weight and the resultant damage caused by the deformation is observed. The impact test method is used to identify how the coating performs under a rapid deformation process.

**Cupping Test** : A coated sheet metal is subjected to a gradual deformation by a polished die. This deformation is caused by the die being pushed from beneath the coating – i.e. from the reverse side of the sheet metal. The end-point is when the coating begins to crack.

### At a glance

- Simple bend tester for determining elasticity, adhesion and cracking.
- Integrated mandrel stand.

Can be used in accordance with:	
ASTM D 522	BS 3900 E1
DIN 53152	ECCA T7

Model	Description	Unit of measurement	Part Number
Elcometer 1500/1	Set of 7 mandrels from 1/8" to 1"	inches	K0US1500M001
Elcometer 1500/2	Set of 13 Cylindrical Mandrels on a Stand ASTM from 2mm to 35mm	mm	K0001500M002

## Related products



Elcometer 1506

This cylindrical mandrel bend tester consists of a robust frame which has a bending lever, with height adjustable rollers and a sliding vice for the sample. Thanks to its design, the instrument can be adapted to the diameter of the mandrel used and are bent perfectly and regularly over the mandrels.



Elcometer 1510

The particularly robust and rigid construction of the Elcometer conical mandrel tester is used in the determination of elasticity, adhesion and elongation of paint on sheet metal. The specimen can be bent on part of or along the entire length of the mandrel, and the results (cracks) corresponding to different test diameters can be observed in a single operation.



Elcometer 1620

Used for assessing the cupping ability of coatings applied to metal sheets up to 1.2mm (0.05") thick, the Elcometer cupping tester is available with either an analogue or a digital gauge, manual or electric. Models are supplied with an illuminated magnifier to accurately view the deformation's results.



Elcometer 1542

Simple but effective method for determining the adhesion of a large variety of coatings. The instrument is ideal for testing the adhesion of thin coatings on flat surfaces using the cross cut method, available with three different spacings 1, 2, and 3mm, corresponding to the thickness of layer to be tested.

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