

Elcometer 3086 Motorised Pencil Hardness Tester



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Can be used in accordance with:

- ASTM D 3363
- BS 3900-E19
- ECCA T4
- EN 13523-4
- ISO 15184
- JIS K 5600-5-4

Standards in grey have been superceded but are still recognised in some industries.

Traditional pencil hardness testers can be limited in their reproducibility and repeatability by two key factors; the uniformity of the carriage speed and the variation of the applied force by the user as the manual tester is moved across the coating.

The Elcometer 3086 Motorised Pencil Hardness Tester, using the same test methods and principles as the Elcometer 501 pencil hardness tester, removes both of these variables by being fully independent. The internal motor drives the unit at a constant, uniform speed across the coated surface, exerting a fixed, user determined force between 0 - 10N (0 - 2.25lbF).

Using the pencil lead holder, pencil leads of varying hardness values can be quickly interchanged to determine a coating's hardness rating.

Manufactured from anodised aluminium, the Elcometer 3086 can travel forwards (chip method) or backwards (indentation method), as required.

Hardness Testing

Hardness can be defined as a material's resistance to permanent deformation.

In the coatings industry, hardness measurement can be used to determine the resistance of the coating to scratching from general wear and tear and also if a coating is fully cured.

The term "Hardness" is used to refer to different properties of material, specifically:

- Resistance to scratch and wear
- Resistance to penetration

Depending on the requirements, there are various methods for testing hardness. Some are dedicated to characterise coatings and others are more suitable for testing bulk materials such as metals, plastics, rubber or elastomers.

TECHNICAL SPECIFICATION	
Dimensions	280 x 140 x 240mm (11 x 5.5 x 9.4")
Weight	3.8kg (8.4lb)
Part Number	K0UK3086M001 Elcometer 3086 Motorised Pencil Hardness Tester, UK 240V
	K0003086M001 Elcometer 3086 Motorised Pencil Hardness Tester, EUR 220V
	K0US3086M001 Elcometer 3086 Motorised Pencil Hardness Tester, US 110V
Packing List	Elcometer 3086, lead holder, lead set (14 cases of leads, grades 6H to 6B), positioning block, abrasive sharpener, abrasive paper and operating instructions

ACCESSORIES			
Spare Lead Holder			KT003084P220
12 Hardness Leads (6B)	KT003084P001	12 Hardness Leads (F)	KT003084P008
12 Hardness Leads (5B)	KT003084P002	12 Hardness Leads (H)	KT003084P009
12 Hardness Leads (4B)	KT003084P003	12 Hardness Leads (2H)	KT003084P010
12 Hardness Leads (3B)	KT003084P004	10 Hardness Leads (3H)	KT003084P011
12 Hardness Leads (2B)	KT003084P005	10 Hardness Leads (4H)	KT003084P012
12 Hardness Leads (B)	KT003084P006	10 Hardness Leads (5H)	KT003084P013
12 Hardness Leads (HB)	KT003084P007	10 Hardness Leads (6H)	KT003084P014

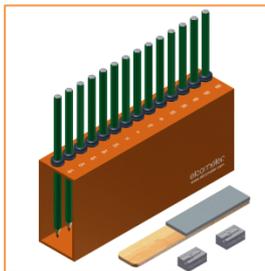
Related Products



Elcometer 501

Elcometer 501 Pencil Hardness Tester

The pencil hardness test, also referred to as the Wolff-Wilborn test, uses the varying hardness values of graphite pencils to evaluate a coating's hardness.



Elcometer 3080

Elcometer 3080 Pencil Hardness Tester

This is a simple and effective technique to evaluate the hardness of many coatings.

The pencil lead, prepared beforehand by using the special pencil sharpener and rubbing it on fine abrasive paper (400 grade), is maintained at an angle of 45° and pushed with uniform pressure on to the sample, leaving either a superficial trace or causing destruction down to the substrate.