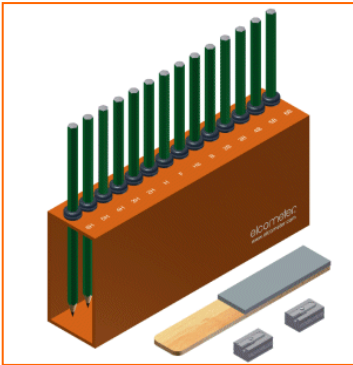


# Elcometer 3080 Pencil Hardness Tester



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.

**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.

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*Standards in grey have been superceded but are still recognised in some industries.*

The Elcometer 3080 Pencil Hardness Test is supplied complete with stand and a series of 14 pencils, ranging from 6B to 6H hardness values.

TECHNICAL SPECIFICATION	
<b>Dimensions</b>	330 x 280 x 330mm (13 x 11 x 13")
<b>Weight</b>	1kg (2.2lb)
<b>Part Number</b>	K0003080M203 Elcometer 3080 6B to 6H Pencil Hardness Test with Stand
<b>Packing List</b>	Set of 14 pencils - 6B to 6H, x2 pencil sharpeners, abrasive paper block, storage stand, operating instructions

ACCESSORIES			
Pencil Sharpener (6H to 2B)		T99923040-1	
Pencil Sharpener (3B to 6B)		T99923040-2	
Set of 14 Pencils (6B to 6H)		T99923039	
12 Hardness Pencils (6B)	T99923042-1	12 Hardness Pencils (F)	T99923042-8
12 Hardness Pencils (5B)	T99923042-2	12 Hardness Pencils (H)	T99923042-9
12 Hardness Pencils (4B)	T99923042-3	12 Hardness Pencils (2H)	T99923042-10
12 Hardness Pencils (3B)	T99923042-4	12 Hardness Pencils (3H)	T99923042-11
12 Hardness Pencils (2B)	T99923042-5	12 Hardness Pencils (4H)	T99923042-12
12 Hardness Pencils (B)	T99923042-6	12 Hardness Pencils (5H)	T99923042-13
12 Hardness Pencils (HB)	T99923042-7	12 Hardness Pencils (6H)	T99923042-14

## Related Products



*Elcometer 3092*

### Elcometer 3092 Sclerometer Hardness Tester

The Elcometer 3092 tests the hardness of a coating by moving a Tungsten Carbide Tip over the coating with predetermined force.



*Elcometer 3086*

### Elcometer 3086 Motorised Pencil Hardness Tester

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.