

# Elcometer 3080 Pencil Hardness Tests and Hardness Pencils



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**At a glance**

- Simple technique for tests evaluating the hardness of coatings.
- Supplied in a test stand with 14 pencils ranging from 6B to 6H hardness values.

**Elcometer 3080 Pencil Hardness Tests and Hardness Pencils**

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

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

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

**Hardness Testers**

Improved mechanical resistance is part of many quality requirements. One important criteria for assessing this feature is hardness.

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.

Elcometer manufacture and supply a wide range of instrumentation designed for the hardness tests most frequently used in the industry – these include pendulum, scratching, indentation or rebound measuring methods.

<b>Can be used in accordance with:</b>
ASTM D3363

Model	Description	Part Number	
Elcometer 3080/3	Elcometer 3080 6B to 6H Pencil Hardness Test with Stand	K0003080M003	
Accessories	Pencil Sharpener	KT003080P018	
	Set of Pencils (6B-6H)	T50115771	
Packing List	Set of 14 pencils, 6B to 6H, 2 x Pencil sharpeners, Storage stand & Operating instructions		
<b>Hardness Pencils – 12 pencils in each box – see below</b>			
Decription	Part Number	Description	Part Number
Hardness Pencils 6B	KT003080P001	Hardness Pencils F	KT003080P008
Hardness Pencils 5B	KT003080P002	Hardness Pencils H	KT003080P009
Hardness Pencils 4B	KT003080P003	Hardness Pencils 2H	KT003080P010
Hardness Pencils 3B	KT003080P004	Hardness Pencils 3H	KT003080P011
Hardness Pencils 2B	KT003080P005	Hardness Pencils 4H	KT003080P012
Hardness Pencils B	KT003080P006	Hardness Pencils 5H	KT003080P013
Hardness Pencils HB	KT003080P007	Hardness Pencils 6H	KT003080P014

## Related products



Elcometer 501

The Elcometer 501 Wolff-Wilborn Pencil Hardness Tester uses the same technique as the Elcometer 3080, but ensures that the pencil lead is maintained at a constant force of 7.5N and at the appropriate angle to meet the standards.



Elcometer 3086

Similar to the Elcometer 501 and using the same pencil hardness technique, this motorised wolff-wilborn test not only ensures the correct angle and force is applied to meet the standard, but also allows the user to ensure a constant and uniform speed - further increasing the reproducibility of the test.



Elcometer 3030/3040

The pendulum hardness tester works on the principle of the damping time of a pendulum oscillating on the sample. The amplitude of the oscillation reduces faster when the sample is soft. The Persoz and König methods differ by the dimension, time period and amplitude of the oscillation.

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