## Hardness & Scratch Resistance

## elcometers inspection equipment

## 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.

The Elcometer 501 has been designed to ensure that the cylindrical pencil lead is maintained at a constant angle of  $45^{\circ}$  and exerts a force of 7.5N (1.68lbF).

The pencil lead, prepared beforehand using the special sharpener and abrasive paper, is inserted into the Elcometer 501 and pushed over the smooth, flat coated surface.

The lowest hardness value of the pencil which marks the coating determines the coating's hardness rating.



STANDARDS: ASTM D 3363, ECCA T4, EN 13523-4, ISO 15184:2012, JIS K 5600-5-4

Technical Specification		С
Part Number	Description	Certificate
H5011	Elcometer 501 Pencil Hardness Tester	0
Dimensions (with Pencils)	130 x 130 x 50mm (5 x 5 x 2")	
Weight	2.1kg (4lb)	
Packing List	Elcometer 501 Pencil Hardness Tester, pencil set (14 pencils, grades 6B - 6H), positioning block, 2 x pencil sharpeners, abrasive paper block, carry case and operating instructions	

Accessories			
Part Number	Description	Part Number	Description
T99923042-1	12 Hardness Pencils (6B)	T99923042-8	12 Hardness Pencils (F)
T99923042-2	12 Hardness Pencils (5B)	T99923042-9	12 Hardness Pencils (H)
T99923042-3	12 Hardness Pencils (4B)	T99923042-10	12 Hardness Pencils (2H)
T99923042-4	12 Hardness Pencils (3B)	T99923042-11	12 Hardness Pencils (3H)
T99923042-5	12 Hardness Pencils (2B)	T99923042-12	12 Hardness Pencils (4H)
T99923042-6	12 Hardness Pencils (B)	T99923042-13	12 Hardness Pencils (5H)
T99923042-7	12 Hardness Pencils (HB)	T99923042-14	12 Hardness Pencils (6H)
T99923039	Set of 14 Pencils (6B to 6H)		
T501190451	Pencil Sharpener (6H to 2B)		
T501190452	Pencil Sharpener (3B to 6B)		
T501190452			

Optional Calibration Certificate available.

© 2015 Elcometer Limited. Elcometer is a registered trademark of Elcometer Limited. All other trademarks acknowledged. Due to our policy of continuous improvement, Elcometer Limited reserves the right to change specifications without notice