

## Elcometer 3025 Scratch/Shear Tester



Elcometer 3025 Scratch/Shear Tester

The Elcometer 3025 is a motorised device to test the resistance of many materials to scratching, shearing, gouging, marring, scraping and engraving. This portable instrument tests materials up to 12.7mm (½") thick by 101mm(4") square or round.

The height of the scale beam is adjusted by the user to match the thickness of the sample. The tool, a conical diamond tip, is then placed on the sample and the instrument is activated by the user with the On/Off switch.

The tip leaves a trace mark and the extent of this, in relation to the load used, indicates the degree of hardness. The turntable rotates at a constant 5rpm to ensure repeatability and reproducibility of tests. By changing the load on the tool, from 0 - 1000g (0 - 2.2lb), the sample's resistance to deformation can be evaluated.

Can be used in accordance with:  
**EN 438-2**  
**ISO 4586-2**

### 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		
<b>Dimensions</b>	445 x 190 x 150mm (17 x 7.8 x 6")	
<b>Weight</b>	6.8kg (14.9lb)	
<b>Part Number</b>	<b>K0UK3025M001</b>	Elcometer 3025 Scratch/Shear Tester, UK 240V
	<b>K0003025M001</b>	Elcometer 3025 Scratch/Shear Tester, EUR 220V
	<b>K0US3025M001</b>	Elcometer 3025 Scratch/Shear Tester, US 110V
<b>Packing List</b>	Elcometer 3025 and operating instructions	

ACCESSORIES		
	The Sample Cutter cuts precise 106mm (4.2") circular samples with a 6.35mm (0.25") centre hole to prepare specimens for use with the Taber® Abrasers.	
	An easy counter-clockwise cutting motion allows the user to cut a variety of materials. Optional pads allowing cutting thicknesses of 0.03mm (0.001"), 4.74mm (0.187") and 6.35mm (0.25") are available.	
	Sample Cutter	<b>ST985000</b>
	Sample Cutter Upper Pad – 4.74mm (0.187")	<b>ST131569</b>
	Sample Cutter Upper Pad – 6.36mm (0.250")	<b>ST131570</b>
	Magnifier (x10)	<b>KT001546N002</b>

## 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 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.

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



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.

#### ENGLAND

Elcometer Limited  
Edge Lane  
Manchester M43 6BU

Tel: +44 (0)161 371 6000  
Fax: +44 (0)161 371 6010  
e-mail: sales@elcometer.com  
www.elcometer.com

#### USA

Elcometer Inc  
1893 Rochester Industrial Drive  
Rochester Hills Michigan 48309

Tel: +1 248 650 0500  
Toll Free: 800 521 0635  
Fax: +1 248 650 0501  
e-mail: inc@elcometer.com  
www.elcometer.com

#### ASIA & THE FAR EAST

Elcometer (Asia) Pte Ltd  
896 Dunearn Rd  
Sime Darby Centre #3-09  
Singapore 589472,  
Republic of Singapore

Tel: +65 6462 2822  
Fax: +65 6462 2860  
e-mail: asia@elcometer.com  
www.elcometer.com

#### BELGIUM

Elcometer SA  
Rue Vallée 13  
B-4681 Hermalle /s Argenteau

Tel: +32 (0)4 379 96 10  
Fax: +32 (0)4 374 06 03  
e-mail: be\_info@elcometer.com  
www.elcometer.be

#### NETHERLANDS

Elcometer NL  
Newtonlaan 115  
3584 BH Utrecht

Tel: +31 (0)30 210 7005  
Fax: +31 (0)30 210 6666  
e-mail: nl\_info@elcometer.com  
www.elcometer.com

#### FRANCE

Elcometer Sarl  
97 Route de Chécý  
45430 BOU

Tel: +33 (0)2 38 86 33 44  
Fax: +33 (0)2 38 91 37 66  
e-mail: fr\_info@elcometer.fr  
www.elcometer.fr

#### GERMANY

Elcometer Instruments GmbH  
Ulmer Strasse 68  
D-73431 Aalen

Tel: +49 (0)7361 52806 0  
Fax: +49 (0)7361 52806 77  
e-mail: de\_info@elcometer.de  
www.elcometer.de