

## Elcometer 109 Tensile Adhesion Tester



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### At a glance

- *Non-destructive adhesion gauge\**
- Certified tensile dollies designed to fail at specified adhesion values.

## Elcometer 109 Tensile Adhesion Tester

The Elcometer 109 Push off Tensile Adhesion Tester provides the operator with a means of carrying out a simple pass/fail test of the adhesion of the coating against a specification limit.

- Non-destructive\*
- Easy to use
- No calibration required
- Colour coded certified tensile dollies
- Robust and lightweight
- Adapter available to allow use with the PAT<sup>TM</sup> tester to fulfil the requirements of (Norwegian) NORSOK Standard M-501

#### Adhesion

From the largest man-made structures to the smallest household appliances, most manufactured products have a protective or cosmetic coating. Premature failure of this coating can, at the very least, result in costly penalties or rework.

Adhesion testing during the coating process will quantify the strength of the bond between substrate and coating, or between different coating layers or the cohesive strength of some substrates. Routine testing is also used as part of inspection and maintenance procedures to help detect potential coating failures.

Elcometer offer a highly comprehensive range of Adhesion Gauges designed specifically to meet your requirements. These gauges can be split into three categories:

### Cross Hatch / Cross Cut Method

The coating is cut into small squares, thereby reducing lateral bonding, and the adhesion assessed against ISO, ASTM or Corporate Standards

Pull Off Adhesion Method
Tensile Dollies (or stubs)
are glued to the coating
and, once the adhesive has
cured, the force required to
pull the dolly off the surface
is measured.

Push Off Adhesion Method Similar to the Pull Off Adhesion Test, a dolly is glued to the coating, once the adhesive has cured, however, the dolly is pushed off the surface by the adhesion gauge.

Can be used in acco	ordance with:
ASTM D4541	BS EN 24624
NORSOK M-501	

Assembled Pull-Off Unit Dimensions	Metric	Imperial	
Height	150mm	6"	
Width (including handle)	80mm	3"	
Kit Weight	1.7kg	3.75lb	

Description	Test Element Value	Accuracy	Colour Code	Part Number
Elcometer 109/1 Adhesion Tester	5MPa (725psi)	±5%	Red	F1091
Elcometer 109/2 Adhesion Tester	7MPa (1015psi)	±5%	Blue	F1092
Elcometer 109/3 Adhesion Tester	9MPa (1304psi)	±5%	Yellow	F1093
Accessories	5MPa Tensile Dollies (Pack of 25)			T10913952
	7MPa Tensile Dollies	T10913953		
	9MPa Tensile Dollies	T10913954		
	Araldite Epoxy Adhes	T99912906		

<sup>\*</sup> Non-destructive if coating is within specification and the tensile dolly breaks. Only a small button remains on the surface which can be sheared off.

## data sheet

### Related products



Elcometer 106



Elcometer 110



Elcometer 1542



Elcometer 1910

Perhaps the best known adhesion gauge on the market today. The Elcometer 106 adhesion tester is easy to operate and fully portable, providing a numerical value for adhesion. Supplied in a rugged carry case for moving around the jobsite, the unit is hand operated so you don't have to worry about a power supply!

The Elcometer 110 Patti® is a portable pneumatic adhesion tester which uses compressed gas from either a canister or the compressed air feed. Due to the controlled force being applied, the resultant adhesion value is highly repeatable. This, together with the gauge's suitability on thin substrates provides the User with an ideal testing instrument in the laboratory or the field.

Simple but effective method for determining the adhesion of a large variety of coatings. The instrument is ideal for testing the adhesion of thin coatings on flat surfaces using the cross cut method, available with three different spacings 1, 2, and 3mm, corresponding to the thickness of layer to be tested.

This lightweight, portable, hydraulic adhesion tester has built in hydraulic safety devices for smooth and drift proof accuracy. The special test head allows adhesion tests on both internal and external curved surfaces, making this an ideal gauge for pipelines and protective coatings applications.

# elcometed

#### **ENGLAND**

Elcometer Ltd 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

#### US/

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

#### CANADA

Elcometer Ltd PO Box 622, 401 Ouelette Avenue Windsor, Ontario N9A 6N4

Tel: +1 248 650 0500 Toll Free: 800 521 0635 Fax: +1 248 650 0501 e-mail: ca\_info@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.be www.elcometer.be

#### **FRANCE**

Elcometer Sarl 97 Route de Chécy 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