

Elcometer 121/4 Standard & Top Paint Inspection Gauges







Elcometer 121/4 Paint Inspection Gauges

At a glance:

Destructive coating thickness gauge used to measure multi-layer coatings

Perform hardness and cross hatch adhesion tests with a single gauge[†]

Can be used in accordance with:			
Standard	Тор		
AS 1580.108.2	As Standard plus		
ASTM D 4138-A AS 1580.408.4			
BS 3900-C5-5B	AS 3894.9		
DIN 50986	ASTM D 3359-B		
ISO 2808-5B	BS 3900-E6		
ISO 2808-6B	ECCA T6		
NF T30-123	EN 13523-6		
	ISO 16276-2		
	ISO 2409		
	NF T30-038		

Available in two models, the Elcometer 121 is designed to measure the thickness of single or multiple layers of coatings on virtually all substrate types including wood, plastic and metal.

Both models are supplied with an illuminated, integrated graticule, x50 microscope.

The Top model has an integrated rotary tool holder which accommodates three standard cutters and one cross hatch cutter.

- Lightweight and Compact:
 Easy to use in confined areas.
- Rugged and durable:
 Made from anodised aluminium for durability.
- Bright LED light source:
 Ensuring clear vision through the integrated microscope.
- Versatile:

Can be used as a paint inspection gauge or cross hatch adhesion tester[†].

Coating Thickness Gauges - Destructive

Destructive thickness measurement is often the only guaranteed method available to test certain coating / substrate combinations including paint applied to concrete, wood, plaster, plastic etc.

When it is necessary to measure the individual layer thickness of multiple-layer coating system, the most accurate method available is the Paint inspection Gauge (P.I.G) coating thickness gauge.

[†] Elcometer 121/4 Top only

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TECHNICAL SPECIFICATION					
	STANDARD TOP				
Range	2 – 2000µm (0.08 – 80mils) – Dependent on cutter used				
Accuracy	Dependent on tool cut angle, half a division				
Dimensions	110 x 75 x 30mm (4.3 x 3 x 1.2")	110 x 75 x 40mm (4.3 x 3 x 1.6")			
Weight	369g (13oz)	383g (13.5oz)			
Part Numbers	A121S Elcometer 121/4 Standard PIG, Dual Scale	A121TM Elcometer 121/4 Top PIG, Metric			
Packing List	Elcometer 121/4 Standard or Top P.I.G., cutter 1, 4 and 6, integral x50 microscope, AG3 batteries (x4) for lamp - fitted, hexagonal wrench, black marker pen, wrist strap, carry case and operating instructions.				

REPLACEMENT P.I.G. CUTTERS (TUNGSTEN CARBIDE)						
Description	Cutting	Practical Maximum Thickness [‡]		Graticule S	Part Number	
	Angle	(µm)	(mils)	mm scale (µm)	Inch scale (mils)	
Cutter No 1	45°	1600	63	20	1.0	T99915761-1
Cutter No 4	26.6°	800	32	10	0.5	T99915761-4
Cutter No 6	5.7°	160	6.3	2	0.1	T99915761-6

[‡] Based on using 80% of cutter width

	CROSS HATCH CUTTERS [†]						
Coating Thi	Coating Thickness Cutter Part Number						
(µm)	(mils)	ASTM – Met	al Substrates	ISO – Hard Substrates (Metal)		ISO – Soft Substrates	
-	0 to 2	T99913700-2	1 mm, 11 cuts	-		-	
-	2 to 5	T99913700-4	2 mm, 6 cuts	-		-	
0 to 60	-	-		T99913700-1 1 mm, 6 cuts		T99913700-4	2 mm, 6 cuts
61 to 120	-	-		T99913700-4	2 mm, 6 cuts	T99913700-4	2 mm, 6 cuts
121 to 250	-	-		T99913700-3	3 mm, 6 cuts	T99913700-3	3 mm, 6 cuts
Adhesive Tape, 1 Roll K0001539M001		K0001539M002					
Adhesive Tape, 2 Rolls		T9998894-		T9999358-			

[†] Elcometer 121/4 Top only

MISCELLANEOUS SPARE PARTS			
Description	Part Number		
Carry Case	T12121191		
Allen Key, 2.5mm	T9996287-		
Black Marker Pen	T1214434-		
LED Torch	T12121158		

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Test Method

The PIG test method is a destructive test to measure the thickness of a coating which is over certain coating/substrate combinations and to also measure individual layers of a multi-layer coating system.



1. Take the coated product



2. Using the marker, mark a line across the coating



3. Using the PIG, make a cut at right angles to the marker line, all the way down to the substrate



4. Using the microscope, measure the number of graticule divisions across a coating layer, using the sharp cut

5. Using the Scale factor (number of microns or mils per division), calculate the coating thickness

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Related Products



Elcometer 141

Elcometer 141 Paint Inspection Gauge

A quick, versatile method of examination and measurement of coatings in a portable, easy to use instrument. Ergonomically designed to give a balanced weight distribution for a more consistent cut – even on thick and hard coatings.



Elcometer 195

Elcometer 195 Säberg Drill

Works differently to a Paint Inspection Gauge, the Elcometer 195 Säberg Drill makes a small hole in order to measure the coating thickness layer, minimising damage to the coating being tested.



Elcometer 107

Elcometer 107 Cross Hatch Adhesion Tester

Provides an instant assessment of the quality of the bond to the substrate. Due to its rugged construction this gauge is ideal for thin, thick or tough coatings on flat or curved surfaces. An ideal field or laboratory test.



Elcometer 1542

Elcometer 1542 Cross Hatch Cutter

Simple but effective method for determining the adhesion of a large variety of coatings. This instrument is ideal for thin coatings on flat surfaces, available with three different spacings, corresponding to the thickness of layer to be tested.

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