

## 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†

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.

### 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.

- **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†.

Can be used in accordance with:	
Standard	Top
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

† Elcometer 121/4 Top only

TECHNICAL SPECIFICATION		
	STANDARD	TOP
<b>Range</b>	2 – 2000µm (0.08 – 80mils) – Dependent on cutter used	
<b>Accuracy</b>	Dependent on tool cut angle, half a division	
<b>Dimensions</b>	110 x 75 x 30mm (4.3 x 3 x 1.2")	110 x 75 x 40mm (4.3 x 3 x 1.6")
<b>Weight</b>	369g (13oz)	383g (13.5oz)
<b>Part Numbers</b>	A121---SM Elcometer 121/4 Standard PIG, Metric	A121---TM Elcometer 121/4 Top PIG, Metric
	A121---SE Elcometer 121/4 Standard PIG, Imperial	A121---TE Elcometer 121/4 Top PIG, Imperial
<b>Packing List</b>	Elcometer 121/4 Standard or Top P.I.G., cutter 1, 4 and 6, integral x50 microscope Metric or Imperial scale, 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 Angle	Practical Maximum Thickness <sup>‡</sup>		Graticule Scale Factor		Part Number
		(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

<sup>‡</sup> Based on using 80% of cutter width

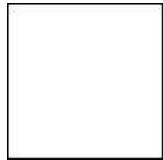
CROSS HATCH CUTTERS <sup>†</sup>							
Coating Thickness		Cutter Part Number					
(µm)	(mils)	ASTM – Metal Substrates		ISO – Hard Substrates (Metal)		ISO – Soft Substrates	
-	0 to 2	T99913700-2	1 mm, 11 cuts	-	-	-	-
-	2 to 5	T99913700-4	2 mm, 6 cuts	-	-	-	-
0 to 60	-	-	-	T99913700-1	1 mm, 6 cuts	T99913700-4	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-			

<sup>†</sup> Elcometer 121/4 Top only

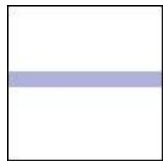
MISCELLANEOUS SPARE PARTS	
Description	Part Number
Carry Case	T12121191
Allen Key, 2.5mm	T9996287-
Black Marker Pen	T1214434-
LED Torch	T12121158

## Test Method

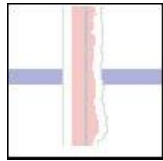
The PIG test method is a destructive test to measure the thickness of a coating which is over certain coating/substrate combinations and to also measure individual layers of a multi-layer coating system.



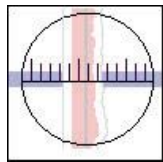
1. Take the coated product



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

## 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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