

elcometer 121 Paint Inspection Gauge

Can be used in accordance with:
ISO 2808-5B
ASTM D 4138
BS EN 3900-CS-5B

Destructive **thickness measurement** is not only often the only guaranteed method available to test certain coating / substrate combinations such as **paint applied to Concrete, Wood, Plaster, Steel, Wood etc**, but also the only method to identify **thicknesses of each individual layer** of a multi-layer coating system.



This easy to use Paint Inspection Gauge provides the User with a cutter, microscope and light all in one housing and is perhaps the most recognised form of P.I.G.

- Battery powered illumination with built-in microscope
- Fully portable and robust
- Three cutters supplied (No. 1, 4 and 6)

Technical Specifications

Thickness Cutters

- No. 1 Coating thickness between 20 – 2000µm
- No. 4 Coating thickness between 10 – 1000µm
- No. 6 Coating thickness between 2 – 200µm

Microscope Magnification x50 magnification

Model	Description	Part Number
Elcometer 121	Elcometer 121 Paint Inspection Gauge complete with Cutter No. 1, 4 and 6	A121-----
Accessories	Cutter No. 1	T1214426-
	Cutter No. 4	T1214429-
	Cutter No. 6	T1214430-

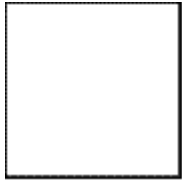


Test Method - Elcometer Paint Inspection Gauge

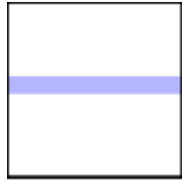
The PIG test method is a destructive test to measure the thickness of a coating which is over certain coating/substrate combinations and to also measure individual layers of a multi-layer coating system.

Procedure

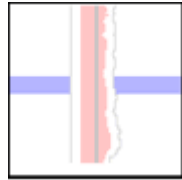
The surface (or test panel) under examination is marked with one stroke from the Koki / Felt marker pen. Then a cut is made at right – angles to this mark and the coating examined through the 50 x's graduated microscope. The blade cuts one “clean” edge (at (1) above) and one ragged edge (at (3) above) ie “substrate edge”. The thickness of each layer is measured from the “clean” edge at (1) to (2) & total thickness from (1) to (3). See the diagrams below.



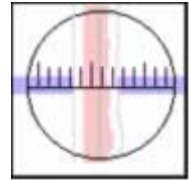
Take the coated product



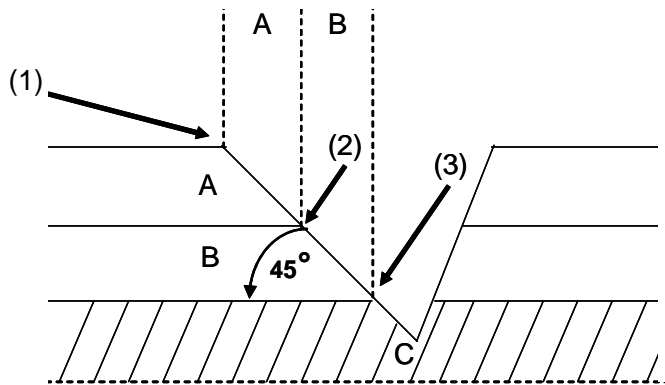
Using the marker, mark a line across the coating



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

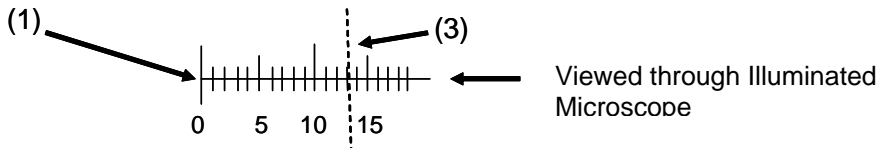


Using the microscope, measure the number of graticule divisions across a coating layer, using the sharp cut



A = Topcoat
B = Undercoat
C = Substrate

(1) = Marker Pen / Koki
(2) = Paint Line
(3) = Ragged Edge



Using the Scale factor (number of microns per division, calculate the coating thickness)

eg	No 1 Blade	13 divisions	x 20	= 260 mic
	No 4	13	x 10	= 130 mic
	No 6	13	x 2	= 26 mic

From the appearance of the cut, Adhesion, Elasticity of the coating, Cleanliness of the substrate, and Adhesion of each separate coating can also be determined.

- NOTE :**
- 1) All images, when looking through the Microscope are reversed
 - 2) The 141 replaces the old 121 at a much lower price. The 121 has **paid for itself** many times over for both authorities below & Paint Manufactures etc.

MAJOR USERS of the model 121 (PIG or “V” Cutter)

PUBLIC WORKS, POST OFFICE, PLASCON, DULUX all use the 121 to measure PVA & Coatings on Plaster, Concrete, Wood, Asbestos etc

The MOTOR ASSEMBLERS measure PAINT on SAMPLES of PLASTIC HUB CAPS & BUMPERS PASSED THRO' THE PAINT BOOTH



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