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ElektroPhysik

Coating thickness  
measurement

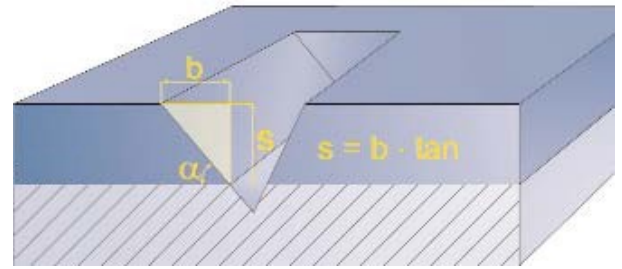
## Paint Inspection Gauge P.I.G. 455



- For layer thickness measurements on base materials such as wood, concrete or plastics
- Small instrument with great capabilities
- LED for optimum specimen illumination
- Low current consumption
- Measurements according to:  
DIN 50986, DIN EN ISO 2808, ASTM D 4138,  
AS 1580 Meth. 408.1

## Purpose and Application

The **P.I.G. 455** is a paint inspection gauge which is suitable for use wherever conventional electro-magnetic measuring techniques are ineffective, namely for coatings on wood, concrete, plastics and other non-metallic substrates.



## Testing principle

Testing with the **P.I.G. 455** is based on the standardized wedge cut procedure: The coating is cut through at a defined angle in such a way that the cut penetrates the substrate. The layer thickness ( $s$ ) is calculated on the basis of the slope projection ( $b$ ) of the cut face, determined using a measuring microscope, and the cutting angle ( $\alpha$ ). Similarly, the individual layer thickness of multilayer systems can be ascertained.

For adhesion tests in accordance with AS 1580 Meth. 408.1, the width of the area where the coating has flaked off during the cutting operation is related to projection  $b$ .

Carbide tip	No. 1	No. 4	No. 5	No. 6
Measuring range ( $\mu\text{m}$ )	20 - 2000	10 - 1000	5 - 500	2 - 200
Cutting angle $\alpha$	45°	26,6°	14°	5,7°
Factor ( $\mu\text{m}/\text{Sc.div.}$ )	20	10	5	2

## Design and Function

The **P.I.G. 455** consists of a black painted aluminium block which accommodates the following functional elements:

- Exchangeable carbide tip with precision-ground angular cutting blade.
- Measuring microscope with a magnification of 50 and a reticle (2 mm with 1/100 division), which is also suitable for inspection tasks.
- Two pairs of support pins to hold the measuring microscope securely and guide the carbide tip.
- Battery compartment for 9 V battery block
- Combination of LED and fibre-optic light guide for optimum specimen illumination at low current consumption
- Key for the integrated illumination

## Technical Data

Measuring range (standard):	2 - 200 $\mu\text{m}$
Dimensions:	110 x 85 x 25 mm
Net weight:	0,4 kg
Power supply:	9 V-Batterie
Light source:	LED diffuse white
Measuring microscope:	
- Magnification	50
- Reticle	2 mm (1/100-division)

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## Order Information

Order-No.	Description
85-803-0008	<b>Coating thickness gauge Paint Inspection Gauge P.I.G. 455</b>
	Scope of delivery includes: - Carbide tip No. 6 - 9 V battery - Marking pen - Leather case - Operating instructions

## Accessories /Spares

Order-No.	Description
85-808-0090	Special tip No. 1 for layer thicknesses up to 2000 $\mu\text{m}$
85-808-0091	Special tip No. 4 for layer thicknesses up to 1000 $\mu\text{m}$
85-808-0092	Special tip No. 5 for layer thicknesses up to 500 $\mu\text{m}$
910927541	Special tip tip No. 6 for layer thicknesses up to 200 $\mu\text{m}$

