

Dry film thickness gauge with fixed & cable sensor

Non-destructive Film Thickness Gages

Coating layer thickness is a critical output parameter for paint and coating application processes. Insufficient thickness of a primer layer can result in delamination or disbonding. Insufficient thickness of a basecoat or color layer can negatively impact color, while insufficient thickness of other layers such as clearcoat can affect appearance. Excessive thickness can result in material waste, sagging or solvent popping. The byko-test film thickness gages measure the film thickness of both FE and NFe substrates quickly and accurately.



Precise and Accurate

The byko-test 9500 dry film thickness gauge has a modular design to accommodate a wide range of applications. It is compatible with ferrous as well as non-ferrous substrates on smooth, rough, and even curved surfaces. A scratch and chemical resistant 61 mm (2.4") color display combined with dust and splash water protection make it the ideal workhorse for everyday measurements. An optional cable sensor probe allows for the measurement of hard-to-reach surfaces. The easy-to-use operator menu allows quick navigation and fast creation of documentation through a USB-to-PC connection.



The ideal workhorse

The byko-test 9500 is the ideal workhorse for reliable measurements even under harsh conditions.

- The byko-test 9500 is the ideal tool for validation and quality control
- High accuracy over the entire measurement range
- High repeatability of measured results
- Works on rough, smooth and even curved substrates
- Temperature compensation directly in the sensor
- Direct feedback from limit indicator in display and RGB-LED on the probe
- IP65 dust and splash water protection
- Fiberglass reinforced casing
- High scratch and chemical resistance (Level H6)
- Temperature probe operational from -20 °C to 70 °C



Flexibility

The byko-test 9500 features the ability to exchange probes quickly and easily. The integrated dual Fe / NFe sensor probe is the perfect choice for most measurement needs. The additionally supplied cable sensor probe allows for the measurement of even hard to reach surfaces with ease. The byko-test 9500 is available in two versions:

Basic Version

With all important functions needed to measure and evaluate the film thickness of any substrate. Equipped with a dual probe for seamless measurement of ferrous and non-ferrous substrates. Equipped with a total memory of 10,000 readings and connection to PC via USB.

Premium+ Version

Additional memory for up to two million readings with the option to program up to 100 different jobs. Additional continuous measurement mode and adjustment for ISO 19840 and SSPC zero offset as well as two-point accuracy verification.



byko-test 4600

The byko-test 4600 dry film thickness gauge has an easy design to ensure a high measuring speed with no adjustments needed. It is compatible with ferrous as well as non-ferrous substrates on smooth, rough, and even curved surfaces. A 2" color display with an automatically flipping display makes it the ideal workhorse for everyday measurements.



Time saving and easy operation

The byko-test 4600 is the ideal tool for validation and quality control.

- Automatic substrate detection
- High measuring speed, simply put on the surface and read the value
- Immediate evaluation by statistics
- No adjustment needed for standard applications



Handy and ergonomic

The byko-test 4600 operates with more than 100 measurements per minute while maintaining its accuracy.

- Practical one-button operation
- Automatically flipping display
- Low center of gravity with large contact surface



Thickness Standards

For control and inspection purposes individual shims or sets of thickness standards are available as accessories.



Standards

ASTM B499, D1186
ASTM D1400, D7091
ISO 2178, 2360, 2808
ISO 19840
DIN 50981
DIN 50984
BS3900-C5, 5411-3
BS5411-11

Catalog Number	3676	3677	3674
Short Description	byko-test 9500 Basic	byko-test 9500 Premium+	byko-test 4600
Measuring Range Mils / μm	0 - 118 mil 0 - 3000 μm		0 - 47 mil 0 - 1200 μm
Accuracy	Fe: 0-2000 μm : $\pm (1 \mu\text{m} + 2 \%)$ NFe: 0-2000 μm : $\pm (2 \mu\text{m} + 2 \%)$ Fe & NFe > 2000 μm $\pm 3 \%$		Fe: $\pm 1 \mu\text{m} + 2\%$ of measured value Fe: $\pm 0.04 \text{ mil} + 2\%$ of measured value NFe: $2 \mu\text{m} + 2\%$ of measured value NFe: $\pm 0.08 \text{ mil} + 2\%$ of measured value
Measuring area, min.	14.5 mm $\varnothing$ 0.6 in $\varnothing$		14 mm $\varnothing$ 0.55 in $\varnothing$
Minimum Curvature	Fe (NFe) convex: 4 mm (30mm) with 2-point-adjustment, zero and 250 μm on original substrate 6 mm (50 mm) with zero adjustment on original substrate Fe (NFe) convex: 0.16 in (1.2 in) with 2-point-adjustment, zero and 9 mils on original substrate 0.24 in (2 in) with zero adjustment on original substrate		Fe 10 mm; NFe 50 mm Fe: 0.39 in ; NFe: 1.96 in
Minimum substrate thickness	Fe (NFe) 25 μm (20 μm) with 2-point-adjustment, zero and 250 μm on original substrate 100 μm (50 μm) with zero adjustment on original substrate Fe (NFe) 1 mil (0.8 mils) with 2-point-adjustment, zero and 9 mils on original substrate 4 mils (2 mils) with zero adjustment on original substrate		Fe: 100 μm ; NFe: 50 μm Fe: 3.9 mil ; NFe: 1.96 mil
Resolution	Adjustable: 0,1 μm (0,1 mils) or 0,01 μm (0,01 mils)		
Interface	USB		
Power supply	2 x AA Batteries 1.5 V Alkali, or rechargeable AA 1.2 V		
Weight	0.27 kg		0.1 kg
Operating temperature	-20 - 70 °C -4 - 158 °F		0 - 50 °C
Storing temperature	-20 - 70 °C -4 - 158 °F		
Dimensions: L x W x H	16 x 6.8 x 3.8 cm 6.3 x 2.7 x 1.5 in		13.5 x 6.3 x 4.3 cm 5.3 x 2.5 x 1.7 in

Delivery Content

byko-test 9500 Basic w/o probe

Dual Probe 3mm for byko-test 9500, ISO 17025 (3678)
Extension cable for 5500/9500 DFT gauge model (15077)
Fe- and NFe- Reference Plate w/2 Foils (15078)
2 Mignon batteries 1,5 V (AA) alkaline
Certificate
Operating Manual

byko-test 4600 with dual Probe 1.2mm

Fe- and NFe- Reference Plate
2 Mignon batteries 1,5 V (AA) alkaline
Certificate
Operating Manual

Catalog Number	Short Description	Delivery Content
7100	Precision Shim, 0.50 mil/12.7 μ m	Precision Shim, 0.50 mil/12.7 μ m
7101	Precision Plastic Shim 1.0 mils	Precision Plastic Shim 1.0 mils
7102	Precision Plastic Shim 2.0 mils	Precision Plastic Shim 2.0 mils
7105	Precision Plastic Shim 5.0 mils / 127 mm	Precision Plastic Shim 5.0 mils / 127 mm
7106	Precision Plastic Shim 6.0 mils / 152 mm	Precision Plastic Shim 6.0 mils / 152 mm
7110	Precision Plastic Shim 10.0 mils	Precision Plastic Shim 10.0 mils
7120	Precision Plastic Shim 20.0 mils	Precision Plastic Shim 20.0 mils
7140	Phenolic Standard 40.0 mils	Phenolic Standard 40.0 mils
15077	Extension Cable for 5500/9500 DFT Gauges	Extension Cable for 5500/9500 DFT Gauges
15078	Fe- and NFe- Reference Plate w/2 Foils	Fe- and NFe- Reference Plate w/2 Foils
3678	Dual Probe 3mm, byko-test 9500, ISO17025	Dual Probe 3mm, byko-test 9500, ISO17025