

Dry film thickness gauge with fixed sensor

byko-test

The byko-test is non-destructive dry film thickness gauge that is compact and simple. It is able to measure both ferromagnetic (Fe) as well as non-ferromagnetic (NFe) substrates and automatically detects the type of substrate. The device can be operated with one hand and features a color display with flip functionality. The strong, wear resistant ruby probe tip makes it the ideal workhorse for everyday measurements.



Four Measurements in one instrument

The byko test Fe/NFe (3790) allows for four different measurements in one instrument. It can measure the film thickness on Fe/NFe substrates, as well as the air temperature, relative humidity and dew point. This allows the full determination of outside parameters to ensure your coatings are performing as they should. With additional SSPC standardized measurement protocols and calibration routines, the byko-test provides the user with more options.



Compact Design

The byko-test Lite (3791) is DFT gauge with less capabilities for a more streamlined process and features just easy to use film thickness measurements on both Fe and NFe substrates.



Thickness Standards

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



Standards

ASTM B 499, D 1186
ASTM 1400, D 7091
ISO 2178, 2360,
ISO 2808, 19840
DIN 50981, 50984
BS 3900-C5
BS 5411-3
BS 5411-11

Catalog Number	3790	3791	3794
Short Description	byko-test Fe/NFe	byko-test Lite	byko-test Lite (certified)
Measuring Range Mils / μm	0 - 79 mil 0 - 2000 μm	0 - 79 mil 0 - 2000 μm	0 - 79 mil 0 - 2000 μm
Measurement Method	Film Thickness Fe/NFe - Dew Point	Film Thickness Fe/NFe	Film Thickness Fe/NFe
Certificate	yes	no	yes
Substrate Fe	Steel or Iron	Steel or Iron	Steel or Iron
Substrate NFe	Non-magnetic metals: aluminum, copper, brass, zinc, stainless steel	Non-magnetic metals: aluminum, copper, brass, zinc, stainless steel	Non-magnetic metals: aluminum, copper, brass, zinc, stainless steel
Measuring Range	0 - 2000 μm	0 - 2000 μm	0 - 2000 μm
Measuring Range	0 - 79 mil	0 - 79 mil	0 - 79 mil
Accuracy	$\pm 2 \mu\text{m} + 3\%$ of measured value $\pm 0,08 \text{ mil} + 3\%$ of measured value	$\pm 2 \mu\text{m} + 3\%$ of measured value $\pm 0,08 \text{ mil} + 3\%$ of measured value	$\pm 2 \mu\text{m} + 3\%$ of measured value $\pm 0,08 \text{ mil} + 3\%$ of measured value
Minimum Curvature	Convex 5 mm; Concave 30 mm	Convex 5 mm; Concave 30 mm	Convex 5 mm; Concave 30 mm
Minimum Curvature	Convex 0.20 in; Concave 1.2 in	Convex 0.20 in; Concave 1.2 in	Convex 0.20 in; Concave 1.2 in
Minimum substrate thickness	Fe: 0,5 mm; NFe: 0,05 mm	Fe: 0,5 mm; NFe: 0,05 mm	Fe: 0,5 mm; NFe: 0,05 mm
Minimum substrate thickness	Fe: 0,019 in; NFe: 0,002 in	Fe: 0,019 in; NFe: 0,002 in	Fe: 0,019 in; NFe: 0,002 in
Temperature Measuring Range	0 - 50 °C		
Temperature Measuring Range	32 - 122 °F		
Temperature Accuracy	$\pm 1.5 \text{ °C}$; $\pm 2.7 \text{ °F}$		
Humidity Measuring Range	0 - 100 % RH		
Humidity Accuracy	20 - 70 %RH: $\pm 4\%$ 0-19 & 71-100 %RH: $\pm 6\%$		
Memory	1000 readings	1000 readings	1000 readings
Weight	0.16 kg	0.16 kg	0.16 kg
Weight	0.35 lb	0.35 lb	0.35 lb
Dimensions: L x W x H	11.5 x 6.7 x 4.4 cm	11.5 x 6.7 x 4.4 cm	11.5 x 6.7 x 4.4 cm
Dimensions: L x W x H	4.53 x 2.65 x 1.75 in	4.53 x 2.65 x 1.75 in	4.53 x 2.65 x 1.75 in

Delivery Content

Instrument
Zero plates Fe & NFe (3800)
Calibration Shims (5) (Only 1 for 3791)
Calibration Certificate
2 AA batteries
USB cable (3799) (3790 only)
Data transfer software (3798) (3790 only)
Manual
Carrying case

Catalog Number	Short Description
3760	Precision Plastic Shim 0.2 mils
7100	Precision Shim, 0.50 mil/12.7 µm
7101	Precision Shim, 0.90 mil/22.9 µm
7102	Precision Shim, 2.00 mil/50.8 µm
7105	Precision Shim, 4.75 mil/121 µm
7106	Precision Shim, 6.75 mil/172 µm
7110	Precision Shim, 10.0 mil/254 µm
7120	Precision Shim, 20.0 mil/508 µm
7140	Phenolic Standard, 40 mil/1016 µm
3771	Precision Plastic Shim 5.5 µm
3772	Precision Plastic Shim 11 µm
3773	Precision Plastic Shim 22.5 µm
3774	Precision Plastic Shim 35.5 µm
3775	Precision Plastic Shim 48 µm
3776	Precision Plastic Shim 100 µm
3781	Precision Plastic Shim 254 µm
3778	Precision Plastic Shim 350 µm
3779	Precision Plastic Shim 485 µm
3799	USB cable byko-test