

Coating thickness  
measurement

**MikroTest®**

A coating thickness gauge for quick, precise  
and non-destructive measurement of:

- electroplating
- nickel coatings
- phosphating
- paint
- plastic
- enamel etc. on steel

**No power supply**

**No calibration**

**Measurement at any angle**

**Fully automatic**



# MikroTest® Magnetic coating thickness measurement

The MikroTest® has been the most widely used coating thickness gauge in the world over the last 40 years. International patents and our production "know-how" ensure that the gauge has the highest technical standards of all analogue magnetic coating thickness gauges.

All instruments conform to national and international standards: DIN EN ISO 2178, DIN 50 982, ASTM B 499, E 376, D 1186, G 12, B 530, BS 5411, ISO 2361

## Application

11 Models – a MikroTest® for every application (see table)

The balanced measuring system ensures accurate readings at any angle

- Horizontal, vertical, overhead
- The gauge allows measurements on curved surfaces
- Precise measurements in tubes and on round parts due to the automatic operation

## Measuring principle

The measurement of the coating thickness is based on magnetic attraction. The attractive force is related to the distance between a permanent magnet and a steel substrate. This dis-

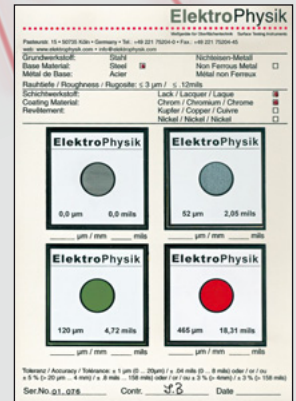
tance represents the thickness of the coating to be measured. The magnet is lifted from the surface by means of a spring connected to the magnet arm. The force needed to lift the magnet is directly related to the angle of rotation of the torsion spring. This measuring principle is also especially suited for electroplated nickel on copper, aluminium and other non-ferrous metals.

## Technical data

Features to make your quality control more precise and accurate

- Highest accuracy with simplest operation
- No calibration necessary  
Simple set-up and measurement
- All gauges are without power or battery

Coating thickness standards for checking the accuracy of MikroTest



- One point measurement
- Robust metal case to protect from mechanical shocks
- Precision measuring system resistant to solvents

## Useful accessories

- Belt pouch for safe transport of the MikroTest®
- Wet film gauge for measuring the thickness of wet coatings
- Coating thickness standards for checking accuracy

## Supply schedule

- MikroTest® gauge with hand strap
- Plastic carrying case
- Operating instructions

## Technical data

Type	Range	Application	Tolerance*	Minimum surface	Minimum curvature radius of the sample	Minimum base thickness
5/6 G	0 ... 100 µm	Electroplating and paint coatings on steel**	± 1 µm or 5% of reading	Ø 20 mm	5 mm convex/ 25 mm concave	0.5 mm
5/6 F	0 ... 1000 µm	Paint on steel**	± 5 µm or 5% of reading	Ø 30 mm	8 mm convex/ 25 mm concave	0.5 mm
6 S3	0.2 ... 3 mm	Enamel, plastic, rubber on steel**	± 5% of reading	Ø 30 mm	15 mm convex/ 25 mm concave	1.0 mm
6 S5	0.5 ... 5 mm		± 5% of reading	Ø 50 mm	15 mm convex/ 25 mm concave	1.0 mm
6 S10	2.5 ... 10 mm		± 5% of reading	Ø 50 mm	15 mm convex/ 25 mm concave	2.0 mm
6 S20	7.5 ... 20 mm		± 5% of reading	Ø 100 mm	100 mm convex/150 mm concave	7.0 mm
6 Ni50	0 ... 50 µm	electroplated nickel on non-ferrous substrates	± (1 µm + 5% of reading)	Ø 15 mm	5 mm convex/ 25 mm concave	–
6 Ni100	0 ... 100 µm		± (1 µm + 5% of reading)	Ø 15 mm	5 mm convex/ 25 mm concave	–
6 NiFe50	0 ... 50 µm	Electroplated nickel on steel**	± (2 µm + 8% of reading)	Ø 20 mm	10 mm convex/ 25 mm concave	0.5 mm

\* Referring to ElektroPhysik standards

\*\* Steel: ST 33 to ST 60

(Type 5 = Standard version, Type 6 = Automatic version)



# ElektroPhysik

**ElektroPhysik**  
 Pasteurstr. 15  
 D-50735 Köln  
 Tel.: +49 (0) 221 752 04-0  
 Fax: +49 (0) 221 752 04-67  
 www.elektrophysik.com  
 info@elektrophysik.com

**ElektroPhysik USA**  
 770 West Algonquin Rd.  
 Arlington Heights IL 60005  
 Phone: +1 847 437-6616  
 Fax: +1 847 437-0053  
 www.elektrophysik.com  
 epusa@elektrophysik.com

**ElektroPhysik Nederland**  
 Borgharenweg 140  
 6222 AA Maastricht  
 Tel.: +31 (0) 43/3 52 00 60  
 Fax: +31 (0) 43/3 63 11 68  
 www.elektrophysik.com  
 epnl@elektrophysik.com

**ElektroPhysik Belgium**  
 Rue Jouhaux 16  
 4102 Ougrée  
 Tél.: +32(0)4 336 52 05  
 Fax: +32(0)4 338 0180  
 www.elektrophysik.com  
 epbe@elektrophysik.com