Coating thickness measurement

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
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 50982, 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 distance 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 operation

** Supply schedule **

- 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

** Technical data **

<table>
<thead>
<tr>
<th>Type</th>
<th>Range</th>
<th>Application</th>
<th>Tolerance*</th>
<th>Minimum surface</th>
<th>Minimum curvature radius of the sample</th>
<th>Minimum base thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/6 G</td>
<td>0 ... 100 μm</td>
<td>Electroplating and paint coatings on steel**</td>
<td>± 1 μm or 5% of reading</td>
<td>Ø 20 mm</td>
<td>5 mm convex/ 25 mm concave</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>5/6 F</td>
<td>0 ... 1000 μm</td>
<td>Paint on steel**</td>
<td>± 5 μm or 5% of reading</td>
<td>Ø 30 mm</td>
<td>8 mm convex/ 25 mm concave</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>6 S3</td>
<td>0.2...3 mm</td>
<td>Enamel, plastic, rubber on steel**</td>
<td>± 5% of reading</td>
<td>Ø 30 mm</td>
<td>15 mm convex/ 25 mm concave</td>
<td>1.0 mm</td>
</tr>
<tr>
<td>6 S5</td>
<td>0.5...5 mm</td>
<td>Enamel, plastic, rubber on steel**</td>
<td>± 5% of reading</td>
<td>Ø 50 mm</td>
<td>15 mm convex/ 25 mm concave</td>
<td>1.0 mm</td>
</tr>
<tr>
<td>6 S10</td>
<td>2.5...10 mm</td>
<td>Enamel, plastic, rubber on steel**</td>
<td>± 5% of reading</td>
<td>Ø 50 mm</td>
<td>15 mm convex/ 25 mm concave</td>
<td>2.0 mm</td>
</tr>
<tr>
<td>6 S20</td>
<td>7.5...20 mm</td>
<td>Enamel, plastic, rubber on steel**</td>
<td>± 5% of reading</td>
<td>Ø 100 mm</td>
<td>150 mm convex/ 250 mm concave</td>
<td>7.0 mm</td>
</tr>
<tr>
<td>6 Ni50</td>
<td>0...50 μm</td>
<td>Electroplated nickel on non-ferrous substrates</td>
<td>± (1 μm + 5% of reading)</td>
<td>Ø 15 mm</td>
<td>5 mm convex/ 25 mm concave</td>
<td>–</td>
</tr>
<tr>
<td>6 Ni100</td>
<td>0...100 μm</td>
<td>Electroplated nickel on non-ferrous substrates</td>
<td>± (1 μm + 5% of reading)</td>
<td>Ø 15 mm</td>
<td>5 mm convex/ 25 mm concave</td>
<td>–</td>
</tr>
<tr>
<td>6 NiFe50</td>
<td>0...50 μm</td>
<td>Electroplated nickel on steel**</td>
<td>± (2 μm + 8% of reading)</td>
<td>Ø 20 mm</td>
<td>10 mm convex/ 25 mm concave</td>
<td>0.5 mm</td>
</tr>
</tbody>
</table>

Ambient temperature: –20°C...100°C · Dimensions: Gauge 215 mm x 55 mm x 29 mm · Plastic carrying case 235 mm x 185 mm x 46 mm · Weight: Case incl. gauge approx. 560 g

* Referring to ElektroPhysik standards
** Steel: ST 33 to ST 60
(Type 5 = Standard version, Type 6 = Automatic version)