Material Testers

## PCE-CT 24

**Car body tester to test metal coatings**

The car body tester is a pocket size device for testing the condition of car bodies and determining the thickness of the varnish layer as well as checking whether the car was repaired after an accident. This car body tester allows the user to locate areas where filler has been used and to determine how thick it is.

- Pocket size tester
- Easy to clean and with integrated sensor
- Easy to use (even for non qualified people)
- LCD with backlight
- Auto shut-off

### Technical specifications

- Measurement range: 0 to 1000 µm
- Resolution: 1 µm
- Accuracy: ±7 digits <200 µm
  - ±3 % ±4 digits >200 µm
- Indicator: LCD with backlight
- Operating temperature: 0 to +50 °C
- Power: 9 V battery pack
- Dimensions: 148 x 105 x 42 mm
- Weight: 120 g

### Contents

- PCE-CT 24 car body tester and user’s manual

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCE-CT 24</td>
<td>Car body tester PCE-CT 24</td>
</tr>
</tbody>
</table>

## PCE-CT 26

**Waterproofing thickness gauge for metal coatings**

This thickness gauge has been developed to measure non-magnetic coatings on ferrous surfaces in the automobile industry. Professionals in the sale and purchase of automobiles value this unit because they can identify areas of damage that a vehicle has potentially suffered in an accident. This thickness gauge is used to measure layers of varnish, isolating coatings or determining thickness of plastic foil laid on steel. The external probe makes it possible to take internal measurements. It’s very easy to use, just switch it on, place the probe on the area to inspect and read the thickness of the paint on the LCD.

- Easy to clean, with external probe (1.2 m cable)
- Easy to use (even for non qualified people)
- Digital LCD
- Zero reset on metals without paintwork
- Auto shut-off to protect battery life
- Memory containing 3 characteristics of user’s calibration
- ISO Certificate (optional)

### Technical specifications

- Measurement range: 0 to 2000 µm
- Resolution: 0.1 µm in the range 0.0 to 99.9 µm
  - 1 µm in the range 100 to 2000 µm
- Accuracy: ±2 % or ±2.5 µm
- Indicator: 4 digit LCD
- Operating temperature: 0 to +50 °C
- Power: 4 AAA batteries 1.5 V (incl.)
- Dimensions: 126 x 65 x 27 mm
- Weight: 120 g incl. batteries

### Contents

- PCE-CT 26 coating thickness gauge, calibration plate, carrying case, batteries and user’s manual

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCE-CT 26</td>
<td>Coating thickness gauge PCE-CT 26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAL-DFT ISO Certificate</td>
</tr>
</tbody>
</table>

## PCE-CT 28

**Easy to use coating thickness meter to measure steel and non-ferrous metal surfaces.**

The PCE-CT 28 coating thickness meter is an economical device for taking measurements without damaging steel and no ferrous metal surfaces. One significant advantage of the device is that it automatically detects the surface type, eliminating the need to select the surface type manually. The coating thickness meter with its integrated measurement sensor can be operated by pressing a single button, making it a very accurate device to use. It’s ideal for measuring the surfaces of vehicles, making it very effective for steel or aluminum bodywork.

- Measurement range up to 1250 µm
- Automatic surface detection (F or FN)
- Wear resistant measurement head
- The V slot in the measurement head simplifies measuring rounded surfaces
- Easy and comfortable to use with only one hand
- Units interchangeable from µm to mils
- Auto shut-off to preserve battery power
- ISO Certificate (optional)

### Technical specifications

- Measurement range: 0 to 1250 µm
- Resolution: 0.1 µm in the range 0.0 to 99.9 µm
  - 1 µm in the range 100 to 1250 µm
- Accuracy: ±2 % or ±2.5 µm
- Minimum object size: 6 x 6 mm
- Minimum substrate thickness: typ F: 0.3 mm
  - typ N: 0.1 mm
- Indicator: 4 digit LCD
- Operating temperature: 0 to +50 °C
- Power: 4 AAA batteries 1.5 V (incl.)
- Dimensions: 126 x 65 x 27 mm
- Weight: 120 g incl. batteries

### Contents

- PCE-CT 28 coating thickness gauge, calibration plate, carrying case, batteries and user’s manual

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCE-CT 28</td>
<td>Coating thickness gauge PCE-CT 28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAL-DFT ISO Certificate</td>
</tr>
</tbody>
</table>

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Material Testers

**PCE-TG100, PCE-TG110, PCE-TG120 & PCE-TG130**

Ultrasonic thickness gauge for several materials
(metal, plastic, glass, and other consistent materials)

The PCE-TG100 Series is a handheld thickness gauge specifically designed for measuring the thickness of metallic and non-metallic materials from one side where it is not possible to gain access to the other side. It can measure materials as aluminium, glass, ceramics, plastics and other ultrasonic wave-conducting materials. The measurement range for steel is from 0.8 to 225 mm. This unit can perform precise measurements on various types of raw materials, component parts, and assembled machinery. It can be used to monitor all types of pipes and pressure vessels for loss of thickness due to corrosion. Various probe configurations serve a wide range of applications.

- Pulse echo with dual probe
- High accuracy even in residual thickness
- Large LCD with backlight
- Low battery indicator on LCD
- 250 hours continuous operation, 30 hours with backlight
- You can replace the probe quickly and easily
- Carrying case which includes probe, ultrasonic couplant and batteries
- ISO calibration certificate (optional)

Choose one of our models that suits your needs:
PCE-TG100: Material thickness gauge for standard applications
PCE-TG110: Material thickness gauge for high temperature
PCE-TG120: Material thickness gauge for tubes with small diameters
PCE-TG130: Material thickness for high dampening measurements

**Technical specifications**

<table>
<thead>
<tr>
<th>PCE-TG100</th>
<th>PCE-TG110</th>
<th>PCE-TG120</th>
<th>PCE-TG130</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use range</td>
<td>probe for standard measurements such as steel, non-ferrous metals, aluminium, ceramics, plastic, glass...</td>
<td>probe for high temp. such as steel, non-ferrous metals, aluminium, plastics, ceramics, glass...</td>
<td>mini probe for measure steel, non-ferrous metals, aluminium, plastics, ceramics, glass, edges, ratios, small surfaces...</td>
</tr>
<tr>
<td>Measure. range (steel)</td>
<td>0.8 to 225 mm</td>
<td>2.5 to 200 mm</td>
<td>1 to 30 mm</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1 mm</td>
<td>0.1 mm</td>
<td>0.1 mm</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±0.1 mm</td>
<td>±0.1 mm</td>
<td>±0.1 mm</td>
</tr>
<tr>
<td>Frequency</td>
<td>5 MHz</td>
<td>5 MHz</td>
<td>5 MHz</td>
</tr>
<tr>
<td>Surface temperature</td>
<td>-10 to +50°C</td>
<td>-10 to +50°C</td>
<td>0 to +50°C</td>
</tr>
<tr>
<td>Sound speed</td>
<td>500 to 9999 m/s, adjustable in readings of 1 m/s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low battery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low battery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-10 to +50 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating humidity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>124 x 67 x 30 mm</td>
<td>124 x 67 x 30 mm</td>
<td>124 x 67 x 30 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>240 g</td>
<td>240 g</td>
<td>240 g</td>
</tr>
</tbody>
</table>

**Contents**
PCE-TG material thickness gauge, probe, battery, ultrasonic couplant, carrying case and user’s manual

**Model No.** | **Description**
---|---
PCE-TG100 | Material thickness gauge for standard applications
PCE-TG110 | Material thickness gauge for high temperature
PCE-TG120 | Material thickness gauge for tubes with small diameters
PCE-TG130 | Material thickness gauge for high dampening measurements

**Optional accessories**
PCE-TG-ST | Standard probe
PCE-TG-HT | Probe for high temperatures
PCE-TG-MT | Mini probe
PCE-TG-HD | Probe for high dampening measurements
 TT-GEL | Ultrasonic couplant, 120 ml
CAL-TG | ISO Certificate

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**PCE-TG 200**

Material thickness gauge with adjustable ultrasonic velocity, memory and interface

The PCE-TG 200 material thickness gauge is ideal for measuring wall thickness and the effects of corrosion or erosion on tanks, pipes or any structure where access is limited to one side. This ultrasonic thickness gauge measures wall thickness of materials such as steel, cast iron, plastic and more.

- Ideal for measuring wall thickness and materials such as steel, cast iron, plastic...
- Internal memory which stores up to 4000 values
- LCD with backlight
- mm / inch switchable
- RS-232 interface for data transfer to a PC
- ISO calibration certificate (optional)

**Technical specifications**

<table>
<thead>
<tr>
<th>Measurement range</th>
<th>0.8 to 220.00 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probe</td>
<td>5 MHz</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.01 mm</td>
</tr>
<tr>
<td>Surface temperature</td>
<td>-20 to +60 °C</td>
</tr>
<tr>
<td>Calibration</td>
<td>internal calibration test block</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±0.04 mm (&lt;100 mm)</td>
</tr>
<tr>
<td></td>
<td>±0.3 % (&gt;100 mm)</td>
</tr>
<tr>
<td>Units</td>
<td>mm / inch (switchable)</td>
</tr>
<tr>
<td>Measurement time</td>
<td>4 readings / sec</td>
</tr>
<tr>
<td>Sound speed</td>
<td>1000 to 9999 m/s</td>
</tr>
<tr>
<td>Sound speed resolution</td>
<td>1 m/s</td>
</tr>
<tr>
<td>Indicator</td>
<td>LCD</td>
</tr>
<tr>
<td>Memory</td>
<td>stores up to 4000 values</td>
</tr>
<tr>
<td>Data output</td>
<td>RS-232 interface</td>
</tr>
<tr>
<td>Power</td>
<td>2 AAA batteries (1.5 V)</td>
</tr>
<tr>
<td>Battery life</td>
<td>250 h (without backlight)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>108 x 61 x 28 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>230 g batteries included</td>
</tr>
</tbody>
</table>

**Contents**
PCE-TG 200 material thickness gauge, 5 MHz probe, software, RS-232 data cable, batteries, ultrasonic coupling, carrying case and user’s manual

**Model No.** | **Description**
---|---
PCE-TG 200 | Thickness gauge PCE-TG 200

**Optional accessories**
CAL-TG | ISO Certificate
TT-GEL | Ultrasonic coupling
RS232-USB | RS-232 to USB adaptor

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**PT-TG 200**

Material thickness gauge with adjustable ultrasonic velocity, memory and interface

The PT-TG 200 material thickness gauge is ideal for measuring wall thickness and the effects of corrosion or erosion on tanks, pipes or any structure where access is limited to one side. This ultrasonic thickness gauge measures wall thickness of materials such as steel, cast iron, plastic and more.

- Ideal for measuring wall thickness and materials such as steel, cast iron, plastic...
- Internal memory which stores up to 4000 values
- LCD with backlight
- mm / inch switchable
- RS-232 interface for data transfer to a PC
- ISO calibration certificate (optional)

**Technical specifications**

<table>
<thead>
<tr>
<th>Measurement range</th>
<th>0.8 to 220.00 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probe</td>
<td>5 MHz</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.01 mm</td>
</tr>
<tr>
<td>Surface temperature</td>
<td>-20 to +60 °C</td>
</tr>
<tr>
<td>Calibration</td>
<td>internal calibration test block</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±0.04 mm (&lt;100 mm)</td>
</tr>
<tr>
<td></td>
<td>±0.3 % (&gt;100 mm)</td>
</tr>
<tr>
<td>Units</td>
<td>mm / inch (switchable)</td>
</tr>
<tr>
<td>Measurement time</td>
<td>4 readings / sec</td>
</tr>
<tr>
<td>Sound speed</td>
<td>1000 to 9999 m/s</td>
</tr>
<tr>
<td>Sound speed resolution</td>
<td>1 m/s</td>
</tr>
<tr>
<td>Indicator</td>
<td>LCD</td>
</tr>
<tr>
<td>Memory</td>
<td>stores up to 4000 values</td>
</tr>
<tr>
<td>Data output</td>
<td>RS-232 interface</td>
</tr>
<tr>
<td>Power</td>
<td>2 AAA batteries (1.5 V)</td>
</tr>
<tr>
<td>Battery life</td>
<td>250 h (without backlight)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>108 x 61 x 28 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>230 g batteries included</td>
</tr>
</tbody>
</table>

**Contents**
PCE-TG 200 material thickness gauge, 5 MHz probe, software, RS-232 data cable, batteries, ultrasonic coupling, carrying case and user’s manual

**Model No.** | **Description**
---|---
PCE-TG 200 | Thickness gauge PCE-TG 200

**Optional accessories**
CAL-TG | ISO Certificate
TT-GEL | Ultrasonic coupling
RS232-USB | RS-232 to USB adaptor
PCE-TG 250

Thickmess meter with adjustable sound velocity and compensation for surface coatings

The PCE-TG 250 thickness meter is an easy to use device that allows for the measurement of material thickness under coated surfaces. Due to its adjustable sound velocity, this thickness meter is ideal for measuring various materials such as steel, aluminium, glass and homogenous plastics. This allows for the device to be used on tanka, tubes and other coated objects.

- Measures through coatings
- Memory for 500 readings, divisible into 5 files and can be displayed on screen
- Sound velocity can be adjusted (for measuring different materials)
- Measures thicknesses from 1 to 250.00mm
- Calibration of one or two points
- Steel plate integrated for recalibration of the device
- Backlit display
- Includes test block

Technical specifications

<table>
<thead>
<tr>
<th>Measurement range</th>
<th>1.00 to 250.00 mm (steel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>0.01 mm (&lt;100 mm)</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±0.01 mm</td>
</tr>
<tr>
<td>Probe</td>
<td>5 MHz</td>
</tr>
<tr>
<td>Surface temperature</td>
<td>-20°C to +60°C</td>
</tr>
<tr>
<td>Calibration</td>
<td>Integrated steel plate</td>
</tr>
<tr>
<td>Sound speed</td>
<td>1000 m/s</td>
</tr>
<tr>
<td>Sound speed resolution</td>
<td>1 m/s</td>
</tr>
<tr>
<td>Indicator</td>
<td>128 x 64 graphic LCD</td>
</tr>
<tr>
<td>Memory</td>
<td>500 x 10 readings</td>
</tr>
<tr>
<td>Power</td>
<td>2 AA batteries</td>
</tr>
<tr>
<td>Dimensions</td>
<td>149 x 73 x 32 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>350g with batteries</td>
</tr>
</tbody>
</table>

Contents

PCE-TG 250 material thickness meter, 5MHz sensor head, calibration standards, batteries, tube of coupling gel, carrying case and user’s manual

Model No. Description
PCE-TG 250 Thickness meter

Optional accessories
CAL-TG ISO calibration certificate
TT-GEL Ultrasonic coupling gel

PCE-1000 Portable hardness tester for ferrous materials

This portable hardness tester utilizes state-of-the-art micro-electronic technology, follows the Leeb rebound principle. This uniquely designed pocket-sized instrument incorporates a hardness impact probe, microprocessor and data display in a single, compact unit. It’s capable of displaying hardness measurements in Rockwell B & C, Vickers HV, Brinell HB, Shore HS and Leeb HL. With the digital indicator, you avoid any error in your measurements.

- Pocket-sized meter
- Measures the hardness of most materials
- Impact and rebound speed of a small body
- Large measurement range
- High accuracy
- Tests at any position, even up-side-down
- Auto shut-off
- Rechargeable battery and charger included
- You can connect several adaptors
- ISO calibration certificate (optional)

Technical specifications

<table>
<thead>
<tr>
<th>Unit</th>
<th>HRC</th>
<th>HRB</th>
<th>HB</th>
<th>HV</th>
<th>HSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>steel</td>
<td>20 to 68</td>
<td>60 to 100</td>
<td>80 to 647</td>
<td>80 to 940</td>
<td>32 to 99</td>
</tr>
<tr>
<td>cold-work toll steel</td>
<td>20 to 67</td>
<td>-</td>
<td>-</td>
<td>80 to 898</td>
<td>-</td>
</tr>
<tr>
<td>stainless steel</td>
<td>20 to 62</td>
<td>46 to 101</td>
<td>85 to 655</td>
<td>85 to 802</td>
<td>-</td>
</tr>
<tr>
<td>grey cast iron</td>
<td>-</td>
<td>-</td>
<td>93 to 334</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>spheroidal iron</td>
<td>-</td>
<td>-</td>
<td>131 to 387</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>aluminium alloy</td>
<td>-</td>
<td>-</td>
<td>30 to 159</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>brass</td>
<td>-</td>
<td>14 to 95</td>
<td>40 to 173</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>bronze</td>
<td>-</td>
<td>-</td>
<td>60 to 290</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>copper</td>
<td>-</td>
<td>-</td>
<td>45 to 315</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Hardness values

- HLC, HRC, HRB, HB, HV, HSD

Material (adjustable)

- STEEL
- CHT. STEEL
- STAIN. STEEL
- GC. IRON
- NC. IRON
- C. ALUMIN
- BRASS
- BRONZE
- COPPER

Accuracy

±6 HL for HL = 800 (0.8 %)

Impact device type D (integrated)

Maximum hardness

940 HV

Radius of object (convex / concave)

Rmin = 30 mm (with element 10 mm)

Minimum object weight

5 kg without basement, 2 to 5 kg with basement

Minimum object size

50 g to 2 kg with basement and coupling liquid

Minimum penetration

0.8 mm

Interface

- -

Memory

- -

Power

9 V rechargeable battery

Max. object temperature

+120 °C

Dimensions

100 x 60 x 33 mm

Weight

150 g

Contents

PCE-1000 portable hardness tester, hardness test block, battery charger, rechargeable batteries, cleaning brush, carrying case and user’s manual

Model No. Description
PCE-1000 Portable hardness tester PCE-1000

Optional accessories
CAL-IMPACT ISO Certificate
**PCE-2000 & PCE-2000DL**

Portable hardness tester for metal with external impact device and RS-232 interface

The PCE-2000 (with D impact device) and the PCE-2000 (with DL impact device) portable hardness tester allows the user to attach various Leeb impact probes and perform rebound hardness measurements with convenient conversion to every popular Rockwell B & C, Vickers HV, Brinell HB, Shore HS and Leeb HL. The external digital display of all functions and measurement values avoid errors. They have a statistical function and a RS-232 interface to transfer data to computer (software and cable optional).

- **Automatic conversions**
- **External impact device**
- **PCE-2000 DL with Leeb impact probes for narrow surfaces**
- **RS-232 interface**
- **Tests in any position, even up-side-down**
- **High accuracy**
- **Internal memory**
- **Software and optional cables**
- **ISO calibration certificate (optional)**

**Technical specifications**

<table>
<thead>
<tr>
<th>Material</th>
<th>Unit</th>
<th>HRC</th>
<th>HRB</th>
<th>HB</th>
<th>HV</th>
<th>HSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>steel / casting</td>
<td>20 to 68</td>
<td>60 to 100</td>
<td>80 to 647</td>
<td>80 to 940</td>
<td>32 to 99</td>
<td></td>
</tr>
<tr>
<td>cold-work toll steel</td>
<td>20 to 67</td>
<td>-</td>
<td>-</td>
<td>80 to 898</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>stainless steel</td>
<td>20 to 62</td>
<td>46 to 101</td>
<td>85 to 655</td>
<td>85 to 802</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>grey cast iron</td>
<td>-</td>
<td>-</td>
<td>93 to 334</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>spherical iron</td>
<td>-</td>
<td>-</td>
<td>131 to 387</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>aluminium alloy</td>
<td>-</td>
<td>-</td>
<td>30 to 159</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>brass</td>
<td>-</td>
<td>14 to 95</td>
<td>40 to 173</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>bronze</td>
<td>-</td>
<td>-</td>
<td>60 to 290</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>copper</td>
<td>-</td>
<td>-</td>
<td>45 to 315</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Accuracy** ±4 HL for HL = 800 (±1.0 %)

**Impact device** PCE-2000, type D; PCE-2000DL, type DL

**Maximum hardness**

- 940 HV

**Radius of object (convex / concave)** Rmin = 30 mm (with element 10 mm)

**Minimum object weight**

- 5 kg without basement, 2 to 5 kg with basement
- 50 g to 2 kg with basement and coupling liquid

**Minimum object size** 3 mm with adhesive liquid

**Minimum penetration** 0.8 mm

**Interface** RS-232

**Memory** 1250 groups (value, data...)

**Power** 2 AAA batteries (1.5 V)

**Max. object temperature** +120 °C

**Dimensions**

- 108 x 62 x 25 mm
- 180 g

**Contents**

- PCE-2000 or PCE-2000DL portable hardness tester, impact device with 1.5m cable, cleaning brush, adhesive liquid, hardness test block, carrying case and user’s manual

**Model No.**

- PCE-2000 Portable hardness tester PCE-2000

**Optional accessories**

- PCE-2000-Soft Software with RS-232 interface
- PCE-2000-SKID Spare impact device type D
- CAL-IMPACT ISO Certificate

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**PCE-2500**

Hardness tester for metals, with memory, USB port, software and USB cable

The PCE-2500 hardness tester for metals is portable, easy to use and is the same size as a pen, allowing it to be carried in a pocket. It is attractive due to its innovative design in the shape of a pen, with a sophisticated load and trigger mechanism. For this reason, it is ideal for testing regular metals where it is necessary to quickly and accurately see the hardness reading. It also allows for the device to have the mechanism correctly positioned upon the material. The hardness tester for metals has memory for storing up to 1250 values and using the USB port, this data can be transferred to a computer.

- Measures in typical hardness units
- Highly accurate
- Automatically shows readings on the LCD
- Measurements can be taken with the device in any position
- Internal memory for up to 1250 readings
- Software and data cable
- Shows all functions and parameters on the display
- Lithium-ion rechargeable battery
- USB port for data transfer

**Technical specifications**

<table>
<thead>
<tr>
<th>Material</th>
<th>Unit</th>
<th>HRC</th>
<th>HRB</th>
<th>HB</th>
<th>HV</th>
<th>HSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>steel / casting</td>
<td>20 to 68</td>
<td>38 to 100</td>
<td>80 to 647</td>
<td>80 to 940</td>
<td>32 to 100</td>
<td></td>
</tr>
<tr>
<td>cold-work toll steel</td>
<td>20 to 67</td>
<td>46 to 101</td>
<td>-</td>
<td>80 to 898</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>stainless steel</td>
<td>20 to 62</td>
<td>-</td>
<td>85 to 655</td>
<td>85 to 802</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>grey cast iron</td>
<td>-</td>
<td>-</td>
<td>131 to 387</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>spherical iron</td>
<td>-</td>
<td>-</td>
<td>90 to 334</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>aluminium alloy</td>
<td>-</td>
<td>-</td>
<td>30 to 159</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>brass</td>
<td>-</td>
<td>20 to 95</td>
<td>40 to 173</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>bronze</td>
<td>-</td>
<td>-</td>
<td>60 to 290</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>copper</td>
<td>-</td>
<td>-</td>
<td>45 to 315</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Accuracy** ±0.5 % for HL = 800

**Impact device** type D

**Maximum hardness**

- 940 HV

**Radius of object (convex / concave)**

- Rmin = 30 mm (with element 10 mm)

**Minimum object weight**

- 5 kg without basement, 2 to 5 kg with basement
- 50 g to 2 kg with basement and coupling liquid

**Minimum object size**

- 3 mm with adhesive liquid

**Minimum penetration** 0.8 mm

**Interface** USB

**Memory** 1250 groups (value, data...)

**Power** Li-ion batteries

**Max. object temperature**)

**Dimensions**

- 108 x 41 x 26 mm
- 120 g

**Contents**

- PCE-2500 hardness tester, software, USB cable, test block, charger and user’s manual

**Model No.**

- PCE-2500 Portable hardness tester PCE-2500

**Optional accessories**

- CAL-IMPACT ISO Certificate
### PCE-DX Series

**Mechanical durometers to test durability of soft glue, hard glue, rubber, elastomer and thermal plastic**

These models of durometers are used to measure durability in Shore A or Shore D. It comes with a measuring component that has a measuring head and a 360° antiglare dial with pressure readings of 0.5 hardness units. Meets the standards DIN 53505, ISO 868, ISO 7619 and ASTM D 2240.

- Shore A models: with/without memory pointer
- Large indicator
- Hardness units (scale’s graduation)
- Pointer sweep of 360°
- High accuracy
- Ergonomic design
- Optional ISO calibration certificate

### PCE-HT 200

**Shore A Hardness tester with RS-232 interface**

This digital durometer for Shore hardness testing is a handheld unit with integrated probe which measures in place on the job, as well as in a laboratory. It has a digital display with a result resolution of 0.1 hardness units. This hardness tester conforms to standards DIN 53505, ISO 7619 and ASTM D 2240. You can use it as a handheld instrument in production or with the optional test stand for serial tests without subjective influences. It has a PC interface allowing for data transfer to a computer. With the RS-232 interface and software you will be able to carry out detailed analysis of the data and serial measurements.

- Pocket size unit with integrated probe
- Peak Hold function
- Auto shut-off after 5 min (protects battery life)
- Low battery indicator
- Serial or isolated measurements
- Data transfer to a PC or portable computer through an optional interface
- ISO calibration certificate (optional)

### Technical specifications

**Measurement range:** 0 to 100 (Shore A)

**Resolution:** 0.1 hardness degree

**Accuracy:** ±1 hardness degree

**Result display:** hardness result, max value, average value (peak value lock)

**Interface for PC:**

- Others functions: auto shut-off, low battery indicator
- Power: 3 batteries 1.25 V (V357)
- Battery life: approx. 300 h
- Operating temperature: 0 to +40 °C
- Weight: 145 g
- Dimensions: 168 x 31 x 30 mm
- Approvals: DIN 53505, ISO 7619, ASTM D 2240

**Contents**

- PCE-HT 200 durometer, batteries, carrying case and user’s manual

**Optional accessories**

- PCE-HT200FJ: Test stand for the PCE-HT 200
- SOFT-HT-200: Software and RS-232 cable
- CAL-HT-2: ISO Certificate

---

### PCE-HT 210

**Shore D Hardness tester with RS-232 interface**

This durometer is used as a handheld unit to measure on the job as well as in a laboratory. It has a solid enclosure with built-in digital display and is accurate to within 0.2 hardness units. It conforms to these standards: DIN 53505, ISO 7619, JKS K 6253 and ASTM D 2240. You can use it in production or with an optional test stand for serial tests without subjective influences. It has an RS-232 interface allowing for data transfer to a PC. With the RS-232 interface and software you will be able to evaluate and analyse the serial measurements. If your PC only has an USB interface, you can order an optional RS-232 to USB adapter.

- Bright and clear LCD
- Peak Hold function
- Universal use
- Auto shut-off
- Low battery indicator
- Serial or isolated measurements
- Data transfer to a PC or portable computer through an optional interface
- ISO calibration certificate (optional)

### Technical specifications

**Measurement range:** 0 to 100 (Shore D)

**Resolution:** 0.2 hardness degree

**Accuracy:** ±1 hardness degree

**Result display:** hardness result, max. and average values (peak value frozen)

**Interface for PC:**

- Others functions: auto shut-off, low battery indication
- Power: 3 batteries 1.25 V (V357)
- Battery life: approx. 300 h
- Operating life: 0 to +40 °C
- Dimensions: 173 x 56 x 42 mm
- Weight: 233 g
- Approvals: DIN 53505, ISO 7619, ASTM D 2240, JKS K 6253

**Contents**

- PCE-HT 210 durometer, batteries, carrying case and user’s manual

**Optional accessories**

- PCE-HT210FJ: Test stand for PCE-HT 210
- SOFT-HT-200: Software and RS-232 cable
- NET-300: Net adaptor 230V / 50Hz
- CAL-HT-2: ISO Certificate

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### PCE-HT Series

- **Model No.**
  - PCE-HT 200: Durometer for Shore A
  - PCE-HT 210: Durometer for Shore D

### Optional accessories

- **PCE-HT200FJ:** Test stand for PCE-HT 200
- **SOFT-HT-200:** Software and RS-232 cable
- **RS232-USB:** RS-232 to USB adapter
- **NET-300:** Net adaptor 230V / 50Hz
- **CAL-HT-2:** ISO Certificate

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### Technical specifications

**Model No.**

- **PCE-HT 200**
  - Durometer for Shore A

**Model No.**

- **PCE-HT 210**
  - Durometer for Shore D

**Contents**

- PCE-HT 200 durometer, batteries, carrying case and user’s manual

**Optional accessories**

- **PCE-HT200FJ:** Test stand for the PCE-HT 200
- **SOFT-HT-200:** Software and RS-232 cable
- **RS232-USB:** RS-232 to USB adapter
- **CAL-HT-2:** ISO Certificate

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**Technical specifications**

**Model No.**

- **PCE-HT 200**
  - Durometer for Shore A

**Model No.**

- **PCE-HT 210**
  - Durometer for Shore D

**Contents**

- PCE-HT 210 durometer, batteries, carrying case and user’s manual

**Optional accessories**

- **PCE-HT210FJ:** Test stand for PCE-HT 210
- **SOFT-HT-200:** Software and RS-232 cable
- **NET-300:** Net adaptor 230V / 50Hz
- **CAL-HT-2:** ISO Certificate
### PCE-HT-225A

**Portable concrete tester**

This hardness tester is based on the Schmidt principle of measurement and is in the form of a hammer. The durometer is used primarily in the construction sector and other industrial sectors (hardness of winded products). The durometer comes calibrated from the factory, but an optional ISO certification can also be ordered.

- Extremely robust design
- Special rebounding body to take numerous measurements on concrete
- Easy to use
- Conversion table on the back
- Correct usage explained in the user’s manual
- ISO calibration certificate (optional)

#### Technical specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement range</td>
<td>100 to 600 kg/cm² (~9,81 to 58.9 N/mm²)</td>
</tr>
<tr>
<td>Accuracy</td>
<td>18 kg/cm² (~±1.8 N/cm²)</td>
</tr>
<tr>
<td>Normal kinetic energy</td>
<td>2207 J</td>
</tr>
<tr>
<td>Impact scale indication</td>
<td>0 to 100 (without dimensions)</td>
</tr>
<tr>
<td>Pressure resistance table</td>
<td>conversion to kg/cm² (rear part)</td>
</tr>
<tr>
<td>(rear part)</td>
<td>(with angular correction)</td>
</tr>
<tr>
<td>Angular correction table</td>
<td>included in the user’s manual</td>
</tr>
<tr>
<td>Minimum concrete thickness</td>
<td>70 cm</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Ø 66 x 280 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>1 kg</td>
</tr>
</tbody>
</table>

#### Contents

- PCE-HT-225A portable concrete test hammer
- Grinding stone
- Wooden carrying case
- User’s manual

#### Optional accessories

- CAL-225A ISO Certificate

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### PCE-RT 1200

**Surface roughness tester for Ra, Rz, Rq and Rt with interface for connection to a computer**

The PCE-RT 1200 meets almost all standards for the detection of roughness. It can test the surface of many different surfaces and can detect many different parameters. The device comes with a mechanism to level off surface irregularities. It’s especially useful for a series of measurements, such as testing the parts shipments or to check internal quality.

- Detects Ra, Rz, Rq y Rt
- Measures the inside of spaces from 6mm of diameter and with a depth of 15mm
- Easy to use menu
- Large LCD with backlight
- Memory for 7 series of measurements
- RS-232 interface
- Rechargeable ion-lithium battery (for 3000 measurements)
- ISO calibration certificate (optional)

#### Technical specifications

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ra, Rz, Rq, Rt</td>
<td>μm and μinch</td>
</tr>
</tbody>
</table>
| Measurement ranges | Ra: 0.005 to 16 μm
|                        | Rz: 0.02 to 160 μm |
| Resolution       | 0.001 μm <10 μm
|                  | 0.01 μm <100 μm
|                  | 0.1 μm >100 μm |
| Accuracy class   | 2 according to DIN 4772 |
| Indicator        | LCD 128 x 64 and illumination |
| Cut off length   | 0.25 mm / 0.8 mm / 2.5 mm |
| Measurement distance in ln | 1 to 5 wave length limit |
| (rear part)      | (1 to 5) x2 wave length limit |
| Minimum concrete thickness | 70 cm |
| Dimensions      | Ø 66 x 280 mm (device without feeler) |
| Weight          | 420 g |

#### Contents

- PCE-RT 1200 surface roughness tester
- Microprobe
- Rechargeable battery
- Roughness standard
- Case and user’s manual

#### Optional accessories

- RT-1200-SW Software and RS-232 cable
- CAL-RT 1200 ISO Certificate for the PCE-RT 1200