Hardness Meter PCE-HT-225A

Handheld mechanical hardness meter for concrete / Schmidt-method / solid measuring device / including a conversion table on the back / long lifetime

The PCE-HT-225A hardness meter for concrete is easy to use and it is used in the construction industry as well as in other industrial sectors (testing for Wickel hardness of rolls in commodities). This hardness meter in the form of a hammer device for testing concrete is based on the Schmidt principal of measurement. Testing is always done under the same test energy of 2207 J. The kinetic energy of the rebound is given by the device as the measurement of the hardness of concrete, of the pressure upon the surface or as the resistance to pressure (kg/cm² or its conversion to N/mm²). The quality of concrete is useful in understanding the material resistance to pressure, as an orientating value for testing the load capacity and durability of concrete constructions. Resitance to pressure is represented as a series of numbers and letters, for example: B 25 indicates that the material is normal concrete with a resistance to a pressure equal to 25 N/mm². Different readings exist up to the highest class of resistance which is indicated as B 55. With our hardness meter you will be able to easily and accurately classify concrete. The hardness meter comes calibrated from the manufacturer but an ISO calibration certificate can be ordered seperately at extra cost. If there are any questions about these products, please call: +44 (0) 2380 98703 0. An overview of all hardness meters can be found here: hardness meters. Our technicians and engineers will gladly give you advice on this professional hardness meter and all other products in the field of measuring instruments, regulation and control, laboratory equipment and scales.

PRICES £

PCE Instruments UK Ltd | Units 12/13 | Southpoint Business Park | Ensign Way | Southampton| Hampshire | United Kingdom | SO31 4RF |
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- Solid design
- Special rebound body to make numerous tests
- Measurement adjustments listed in the manual
- Conversion table on the back
- Optional ISO calibration ceritificate
- Very easy to use

General information about concrete resistance to pressure

Resistance to pressure is generally defined as the measurement of resistance to breaking under a particular pressure load at an axis during a brief point in time. The resistance to pressure of concrete is determined, taking into account the following parameters:
- Resistance of a cement block
- Composition and compactness of concrete
- Time and conditions of storage
- Dimensions and form of element being tested
- Type and duration of load

Resistance to pressure is normally determined in laboratories using cubes or cylinders of concrete. Once the concrete sample is chosen, it is recommended to immediately prepare flat and smooth upper surface. Cylinders are very durable. In places where it's not possible to take measurements with methods used in laboratories, a hardness meter, with an easy to use hammer, is applied.

The image to the right shows the hardness meter measuring a plinth of an old wall in an old factory building. The plinth is not inlcuded and for this reason, the measurement is made on the painted concrete surface. The degree of hardness is obtained accurately after the measurement is done using the rebound body (rebound value = R) upon the surface of the concrete and with the help of a conversion table on the back or in the user manual.

Technical specifications of the hardness meter

Range of measurement	100 to 600 kg/cm² (~9.81 to 58.9 N/mm²)
Energy	2207 J
Adhesion of the probe tip	0,65 ... 0,15 N
Radius of the probe tip	25 mm ±1 mm
Average rebound value	80 ±2
Elastic expansion of the spring	75 mm ±0,3 mm
Indication of measurement	0 to 100 (without dimensions)
Maximum thickness of concrete (of the material)	70 cm
Dimensions	diameter 54 x 280 mm
Weight	1 kg

Delivery content of the hardness meter

1 x PCE-HT-225A hardness meter
1 x calibration plate
1 x carrying case
1 x user manual

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Optional accessories

- ISO calibration certificate:

For companies that wish to incorporate the device into the internal quality control tools or for annual recalibrations. The ISO certificate includes a calibration and a document containing all the calibration readings.

- ENAC calibration

Aside from an ISO calibration certificate, we can also offer an ENAC calibration. As this is not yet treated as a standard laboratory calibration, please contact us by phone or by fax to get more information. One of our technicaians will provide you with further information and they can also give you a quote and schedule your ENAC calibration.

Here you will find an overview of all the measuring instruments available at PCE Instruments.

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