



Shore Durometers / Hardness Tester

To determine the indentation hardness of different materials like rubber, elastomers, plastic, thermoplastic etc.

Shore Durometer

Available for Shore A and D

According DIN 53505, ISO 7619-1, ISO 868, ASTM D 2240

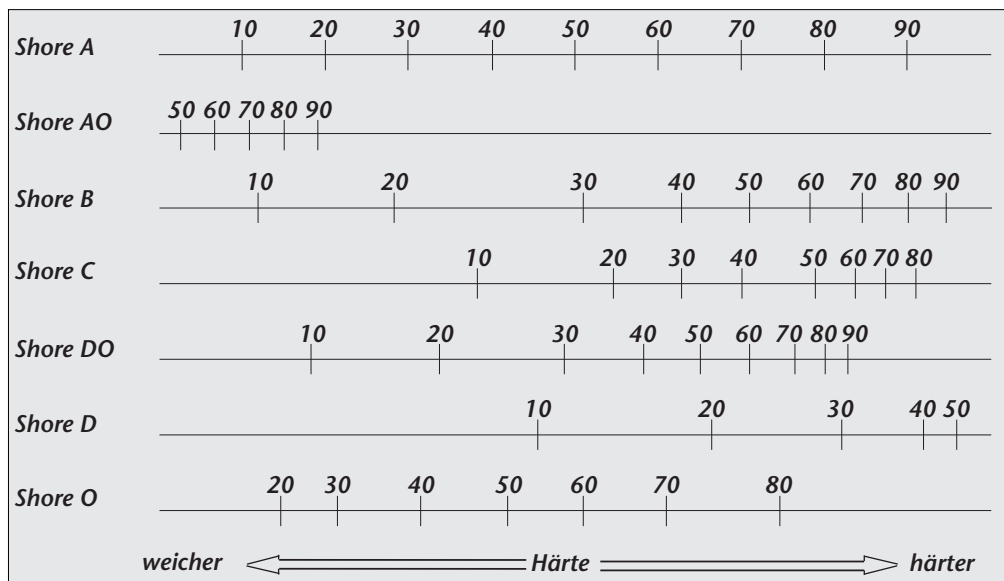
General

The principle used to measure shore hardness is based on measuring the resistance force of the penetration of a pin into the test material under a known spring load. The amount of penetration is converted to hardness reading on a scale with 100 shore units.

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As the depth of indentation is max. 2.5 mm the test-material has to have a minimum thickness of 6 mm. If thickness is less stack some samples till you reach the required thickness.

The point of measurement should be more than 13 mm inner from the edge of the sample.



Comparison table of different Shore Hardness measurements

Available Models

Model	Shore	Application	Sample of use
SHTA	Shore A	Soft rubber, elastomers, natural rubber products, soft PVC, leather, neoprene, etc.	e. g. printing rolls, tyres
SHTD	Shore D	Hard rubber, rigid thermoplastic, resopal, hard plastics materials	e. g. acrylic glass, polystyrol etc.

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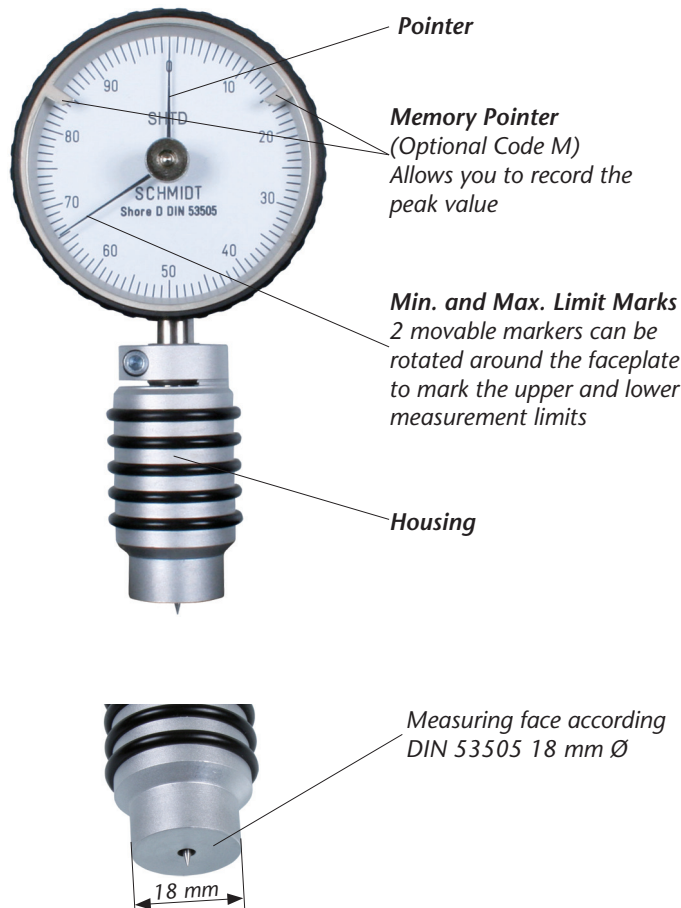
e-mail: info@hans-schmidt.com
Internet: <http://www.hans-schmidt.com>



Special features

- Easy to use
- High repeatability
- Working base / Measuring face 18 mm Ø
- Adjustable Min. Max. indicator marks
- Compact durometer for fast measurements

Operating



For measuring the hardness, place the durometer vertical and shock-free on the measured material and press the housing down, until the measuring face rests on the sample.

Optional Accessories

Code M Memory pointer to capture and store value (highest reading) during measuring

If required an Calibration certificate with calibration report can be ordered optionally.

Test Blocks for Shore hardness

The usage of the test block shows, if the durometer is working within the tolerance. This kit will prove to be invaluable in helping to maintain durometer read-out accuracy for science, manufacturing, research and development. As a reference check, it will indicate, if a durometer is operating within tolerances. A durometer should never be calibrated with test blocks. For durometer calibration we recommend to return the durometer to the manufacturer. The test blocks are manufactured of high quality material, however, it is recommended that the calibration of the test blocks be verified annually.

Test Blocks for Shore A: Model HP-PA,
7 blocks from 30 to 90 Shore A

Test Blocks for Shore D: Model HP-PD,
3 blocks from app. 60 to 85 Shore D

Control rings:

Control of the measuring distance (available as optional accessory)



1 Set Control Rings Model HP-P20-100
consisting of 4 control rings for checking 20, 40, 60 and 80 Shore and one base disk as basis for the control rings



Control Ring Model HP-P20
for checking 20 Shore

Specifications

Model	HPSA	HPSD
Shore:	Shore A	Shore D
Indenter:	Cone 35°, 1.25 mm Ø	Tapered pin 30°, 1.25 mm Ø
Application range:	10 - 90 Shore A	10 - 90 Shore D
Standard:	DIN 53505 according ISO 868, ISO 7619-1, ASTM D 2240	DIN 53505 according ISO 868, ISO 7619-1, ASTM D 2240
Accuracy:	± 1 hardness unit	± 1 hardness unit
Display range:	0 - 100 Shore A Units	0 - 100 Shore D Units
Depth of indentation:	0 - 2.5 mm	0 - 2.5 mm
Measuring spring force:	0.55 - 8.065 N	... 4.45 - 44.5 N
Scale diameter:	54 mm	54 mm
Measuring face:	18 mm Ø	18 mm Ø
Working base:	44.5 mm Ø	44.5 mm Ø
Weight, net (gross):	approx. 200 g (approx. 300 g)	approx. 200 g (approx. 300 g)
Dimensions (LxWxH):	28 x 58 x 110 mm	28 x 58 x 110 mm

Delivery includes



Delivery includes
Hardness tester in carrying case with certificate of compliance with the order;
Calibration certificate with calibration report can be ordered optional