



Portable Shore hardness testers

Portable hardness testers to measure Shore hardness A or D, according DIN ISO 7619-1, ISO 868 and ASTM D 2240.

- Measuring range: 0-100 Shore.
- Analog: graduation 1 Shore, digital: resolution 0.1 Shore.
- Measuring length: 2.5 mm.
- Material thickness: ≥ 6 mm.
- Delivery in a case.

- Analog**
- Dial diameter: 57 mm.
 - Dimensions: 110x58x30 mm.
 - Weight: 230 g.

Digital
Integrated sensor and equipped with comfortable buttons. Possibility for display of current, average and maximum measuring value.

- Accuracy: ± 1 Shore.
- RS232C data output.
- On/off switch.
- Automatic switch-off.
- Max function.
- Calculation of the average of at most 9 measurements in "max mode".
- Dimensions: 161x65x28 mm.
- Power supply: 4 batteries type AAA.



909.066



Item No.	Type	Meas. range/Shore
907.882	Shore A	20- 90
907.889	Shore D	20- 90
Digital:		
909.066	Shore A	0-100
909.068	Shore D	0-100
Options:		
497.914	Spare battery (4 needed)	
909.078	RS232C cable and software	
909.430	Shore A (30x90) test block set 50x50x7 mm	
909.431	Shore D (30x90) test block set 50x50x7.5 mm	

Type	Shore A	Shore D
Max. spring force	8.065 N	44.50 N
Impact module	V _{35°}	V _{30°}
Applications	Soft rubber, elastomers, nature rubber, etc.	Hard rubber, thermoplastics, etc.



907.882



909.430



909.431

Hildebrand portable Shore hardness testers

Portable hardness testers to measure Shore hardness A or D, according DIN ISO 7619-1, ISO 868 and ASTM D 2240.

- Measuring range: 0-100 Shore.
- Graduation: 1 Shore.
- Accuracy: ± 0.5 Shore.
- Measuring length: 2.5 mm.
- Material thickness: ≥ 6 mm.
- With or without extra pointer for maximum measuring value indication.
- Dial diameter: 57 mm.
- Total length: 121 mm.

- Weight: 184 g.
- Delivery in a case with a declaration of conformity.
- 2 year factory guarantee.



856.005



Type	Shore A	Shore D
Max. spring force	8.065 N	44.50 N
Impact module	V _{35°}	V _{30°}
Applications	Soft rubber, elastomers, nature rubber, etc.	Hard rubber, thermoplastics, etc.

Item No. Type

- 856.005 Shore A
- 856.006 Shore D

With maximum value indication:
856.007 Shore A
856.008 Shore D

Measuring stand for Hildebrand Shore hardness testers

To increase the accuracy and repeatability of the measurements, the use of this stand is recommended. It prevents possible errors that can occur by differences in the pressing force or when the hardness tester is not held up right.

- Max. measuring height: 180 mm.
- Measuring table: ø98 mm.
- Standard equipped with a weight (1000 g) for Shore A.
- Load weight: Shore A: 274 g, Shore D: 4000 g.
- Stable aluminum construction, table of stainless steel.
- Weight: 16.4 kg.



856.012

856.011

856.010

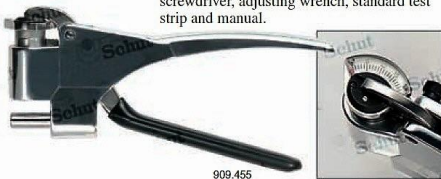
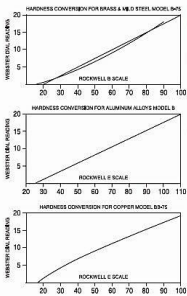
Item No.	Description
856.010	Measuring stand
Options:	
856.011	Weight for Shore A
856.012	Weight for Shore D
856.028	Set of setting standards (20, 40, 60 and 80 Shore)

Portable hardness testers

For measuring the hardness of various materials like aluminum, copper, brass and soft steel. Fit for various forms like extrusion profiles, tubes and flat materials.

- Measuring range: 0-20 Webster. Values to convert by means of graph (Rockwell B or E Scale).

- Material thickness: 0.4-6 mm.
- Round anvil: ø3/16".
- Delivery in a case incl. spare penetrator, screwdriver, adjusting wrench, standard test strip and manual.



909.455

Item No.	Rockwell	Material
909.455	E25-E110	aluminum
909.456	B25-B100	brass, hard aluminum, soft steel
909.457	E20-E100	copper

Portable digital hardness tester

This Swiss made quality product allows one to determine HRC hardness in the most simple way. Modern technology resulted in an extremely compact and easy to use tool. No switches, buttons or cables, simply pull up the ring, measure and immediately read out the value. The measurement causes hardly any damage to the product. Especially suitable for larger objects, installed machines and use in hard-to-reach places.

- Measuring range: 20-70 HRC.
- Resolution: 0.1 HRC.
- Accuracy: ± 1.0 HRC.
- Automatic switch-off.
- Operating temperature: 5 to 50°C.
- Dimensions: ø 12 x 140 mm.
- Weight: 36 g.
- Power supply: 2 batteries type V394.

- Requirements**
- Solid base (at least 5 kg) for objects < 5 kg.
 - Minimum thickness of objects: 3 mm.
 - Minimum thickness of a hardened top layer, if any: 0.7 mm.
 - Minimum diameter of workpiece: 10 mm.
 - Minimum radius of spherical measuring surface: 30 mm.



Item No.	Description
774.075	Digital hardness tester
Option:	
420.248	Spare battery (2 needed)

Portable digital hardness tester

With this portable hardness tester one can easily measure the hardness of installed machines or steel constructions, in hard-to-reach places, of heavy and large objects and for example for inspection of large series in the production process. The most common hardness scales can be measured and read out directly on the screen.

- Measuring range with impact module D: HLD 200-900, HB 30-650, HRC 20-68, HV 80-940, HRB 20-100, HSD 32.5-99.5.
- Accuracy: ± 0.8% (at HLD 800).
- On/off switch, automatic switch-off.
- Storage for 500 measuring values.
- Calculates automatically the average of at most 7 measuring values.
- Min. radius: 30 mm.
- Operating temperature: 0 to 45°C.
- Admissible relative humidity: < 90%.
- Dimensions basic instrument: 170 x 68 x 30 mm.
- Weight basic instrument: 250 g.
- Delivery including:
 - integrated impact module D,
 - test block HLD 2.5 kg,
 - 2 batteries.
- ASTM A956.
- Delivery with an inspection report.
- Power supply: 2 batteries type AAA.



Item No.	Description
906.804	Digital hardness tester
Options:	
497.914	Spare battery (2 needed)
906.813	Ext. impact module C
906.817	Ext. impact module DL
906.834 ⁴	Test block 2.5 kg (HLD 750-850)

⁴ Delivery with an inspection report.

External impact module C

4x reduced impact energy for hardened components, thin-walled materials and layers on a surface.

External impact module DL

With thin, long probe on the impact module for measuring in grooves, blind bores etc.

Requirements

Impact module	Min. weight workpiece/kg	Min. thickness/mm object	Min. thickness/mm hardened top layer ¹	Max. roughness Ra/µm
C	0.5	1.5	1	0.2
D/DL	2	5	5	0.8
G	5	15	10	6.3

¹ On a solid base of at least 5 kg.

² Without solid base.

³ Minimum thickness of a hardened top layer, if any.

Selection table materials for impact module D/DL

Material	HLD	HRC	HRB	HB (30D ²)	HSD	HV
bright steel	300-900	20.0-68.0	38.4-99.5	80-647	32.5-99.5	80-940
tool steel	300-840	20.4-67.1				80-898
stainless steel	300-800	19.6-62.4	46.5-101.7	85-655		80-802
gray cast iron	400-660			131-387		
cast iron	360-650			99-334		
cast aluminum	200-560			30-160 (10D ²)		
brass	200-550	20.0-	95.3	40-173		
bronze	300-700			60-290		
copper	200-690			45-315		



Portable digital hardness testers

- Measuring range:
 - HL 174 - 900, HB 20 - 655,
 - HRC 19.6 - 68, HV 80 - 940,
 - HRB 13.5 - 101.7, HS 32.5 - 99.5.
 - Accuracy: $\pm 0.5\%$ (at HL 800).
 - On/off switch, automatic switch-off.
 - Min. radius: 30 mm.
 - Tungsten carbide stylus tip.
 - USB data output.
 - ASTM A956.
 - Delivery with an inspection report.
- Digital hardness tester (909.470)**
- Storage for 10000 measuring values.
 - Operating temperature: -20 to 50°C.
 - Dimensions basic instrument: 133x75x29 mm.
 - Weight basic instrument: 260 g.



- Digital hardness tester (909.485)**
- Storage for 1250 measuring values.
 - With integrated impact module D.
 - Operating temperature: -20 to 40°C.
 - Dimensions basic instrument: 158x41x26 mm.
 - Weight basic instrument: 120 g.
 - Delivery in a case with
 - AC adapter/charger, software and cable, small supporting ring, test block D (909.478) and integrated impact module D.
 - Power supply: 1 rechargeable battery 3.7 V.
 - AC adapter/charger.



Item No.	Description
909.470	Digital hardness tester
909.485	Digital hardness tester
Options:	
909.477	Set special support rings
909.478 ¹	Testblock D, 2.5 kg (HLD 790 \pm 40)
909.479 ²	Testblock G, 5.5 kg (HLD 590 \pm 40)
Options (only for 909.470):	
495.111	Spare battery (2 needed)
909.480	Printer
270.732	Printing paper (5 rolls)
909.471	Ext. impact module D
909.472	Ext. impact module G
909.473	Ext. impact module C
909.474	Ext. impact module DL
909.481	Cable for ext. impact module

¹ Delivery with an inspection report.
² For use in combination with impact module G.

Selection table materials for impact module D

Material	HLD	HRC	HRB	HB	HS	HV
bright steel	300-900	20.0-68.0	38.4-99.5	80-647	32.5-99.5	80-940
tool steel	300-840	20.4-67.1				80-898
stainless steel	300-800	19.6-62.4	46.5-101.7	85-655		85-802
gray cast iron	360-650			93-334 (30D ²)		
cast iron	400-660			131-387 (30D ²)		
cast aluminum	174-560			20-159 (10D ²)		
brass	200-550	13.5-95.3		40-173 (10D ²)		
bronze	300-700			60-290 (10D ²)		
copper	200-690			45-315 (10D ²)		

Portable digital hardness testers (continued)

Optional impact devices

External impact module D

External module, instead of standard module.

External impact module DL

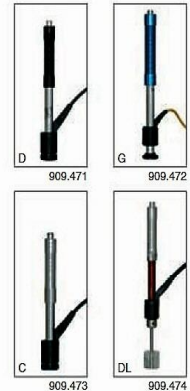
With thin, long probe on the impact module for measuring in grooves, blind bores etc.

External impact module C

4x reduced impact energy for hardened components, thin-walled materials and coatings.

External impact module G

9x higher impact energy for rough casting pieces etc.



Impact devices	D	DL	C	G
Max. roughness (Ra)	2	2	0.4	7
Impacting energy (Nmm)	11	11	3	90
Mass of impact body (g)	5.5	7.8	3.0	20
Impact body length (mm)	147	250	141	254
Max. hardness of workpiece (HV)	940	940	1000	-
Max. hardness of workpiece (HB)	-	-	-	650
Min. weight of sample:				
of compact shape (kg)	5	5	1.5	15
on solid support (kg)	2	2	0.5	5
coupled on plate (kg)	0.1	0.1	0.02	0.5
Min. thickness of sample:				
coupled (mm)	3	3	1	10
min. thickness of hardened layers (mm)	0.8	0.8	0.2	-

Impact bodies

Item No.	Description
909.482	Impact body D
909.483	Impact body G
909.564	Impact body C
909.484	Impact body DL



Set special support rings

The set consists of

Type	Description
①	Cylindrical outside surface R10 - R15
①	Cylindrical outside surface R14.5 - R30
①	Cylindrical outside surface R25 - R50
②	Cylindrical inside surface R11 - R13
②	Cylindrical inside surface R12.5 - R17
②	Cylindrical inside surface R16.5 - R30
③	Spherical outside surface SR10 - SR15
③	Spherical outside surface SR14.5 - SR30
③	Spherical outside surface SR11 - SR13
④	Spherical inside surface SR12.5 - SR17
④	Spherical inside surface SR16.5 - SR30
⑤	Cylindrical outside surface, radius adjustable $\geq R10$

