



...offers the industry and research laboratories a valuable and reliable partnership by a consequent development in the special field of exact hardness testers.

We are producing the corresponding hardness testers for an accurate hardness determination on all natural and synthetic rubber products, acrylic glass, acetates, casting resin, polyester, thermoplastics, PVC, neoprenes, hardboards, wood, leather and much more.

We are building absolutely exact SHORE hardness testers which are easy to handle. They can be used:

- as portable instruments for variable use
- in connection with our test stands for stationary use.

We are producing special high-grade test systems with numerous enlargements'possibilities, too. All our instruments fulfill the demand of certain standards.

All BAREISS-EXACTA-HARDNESS TESTERS according to Shore have got a round, clearly arranged and antigrave scale. The scale's graduation always is 0 - 100 Shore, divided in 100 units. The most important advantage of these handy hardness testers is the absolute precise indication of the measured values. This exact indication of measured values is the result of an individual assembly of each single instrument and the use of strictly selected components.

All BAREISS-EXACTA-HARDNESS TESTERS can be equipped with a maximum indicating pointer, on demand. This device makes easier to read the maximum value and allows the determination of the flow characteristics of the material after a certain test time. Our comprehensive program covers the wide spread hardness range of very different materials. Our hardness testers HP-A and HP-D are used for hardness tests conforming to standards **DIN 53 505 and ISO 868**. Our hardness testers HP-B, HP-C, HP-DO, HP-O and HP-OO serve for hardness tests conforming to standards **ASTM D 2240**.

The BAREISS-EXACTA-HARDNESS TESTER according to Shore A, combined with the screw-on loading weight according to DIN 53 505, guarantees a constant measuring result. The complete measuring device in the practical case is easy to transport and therefore can be used universally.

## Electronic Manual Hardness Tester



EXACTA-HARDNESS TESTER HP-A5



EXACTA-HARDNESS TESTER HP-D



for hardness tests in compliance with the standards according to Shore A, B, O, OO and Shore D, C, DO.

The electronic manual hardness tester serves for the hardness determination of rubber, elastomeres and plastics within the ranges SHORE A, B, O, SHORE D, C, DO.

**Application** - Test objects with a plane-parallel surface of minimum  $\varnothing$  35mm and a material thickness of 6mm are necessary for a hardness test according to the standards. Hardness tests can be done in a vertical, horizontal position and on places which are difficult to reach. This hardness tester can also be used in laboratories or for series measurements in combination with our test stand BS 61.

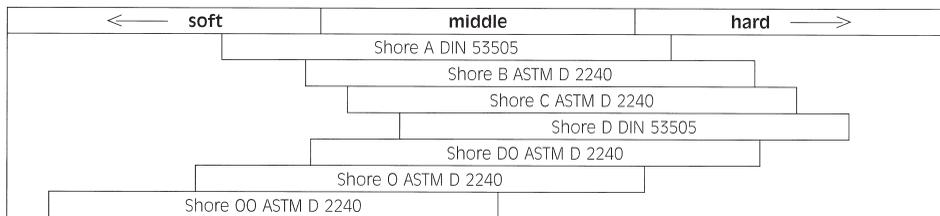
**Measuring faults are excluded** - A sprig, which is integrated in the tester (protected by DGM 93 18 389.5) produces a constant contact pressure acc. to standards. Thus a toe-out or toe-in or a bevelled position is avoided reliably. Measuring faults because of an inconstant contact pressure are excluded. After the measuring time has run down, an optical and acoustical signal is sent. As soon as the next measurement is started, the last measured value is erased. If there is no measurement for a longer period, the instrument switches to a Stand-By Mode.

**Technical Data** - Types of instruments A, B, O, OO, C, DO according to the standards DIN 53505, ASTM D 2240, ISO 868, NFT 51109, BS 903 PART A26

**Membrane keyboard** - 2keys, Time:ON/OFF/ZERO, Display:1 lined, Battery:minimum process time 2000 hours, Dimensions:135x65x40mm, Weight:350g

**Accessories** - Test stand BS61, weight Shore D. Subject to technical changes without notice.





dial gauge	spring power	press power	indentor	measuring distance	measuring range
Shore A	806,50 cN	12,5 N	truncated cone 35°	2,5	0 – 100
Shore D	4450,0 cN	50,0 N	point 30°	2,5	0 – 100
Shore B	805,00 cN	1 kg	point 30°	2,5	0 – 100
Shore C	4445,0 cN	5 kg	truncated cone 35°	2,5	0 – 100
Shore DO	4445,0 cN	5 kg	ball 3/32"	2,5	0 – 100
Shore O	805,00 cN	1 kg	ball 3/32"	2,5	0 – 100
Shore OO	111,1 cN	400 g	ball 3/32"	2,5	0 – 100

<b>HP-A or HP-AS*</b> according to DIN 53505, ISO 868, NFT 51109, ASTM D 2240, BS 903 Part. A 26	material thickness from 6 mm on soft rubber, elastomers, natural rubber products, neoprenes, casting resin, polyester, soft-PVC, leather, etc.
<b>HP-D or HP-DS*</b> according to DIN 53505, ISO 868, NFT 51109, ASTM D 2240, BS 903 Part. A 26	material thickness from 6 mm on hard rubber, hard plastic materials, acrylic glass, polystyrol, rigid thermoplastics, resopal, printing rolls, vinyl-plates, cellulose-acetate, etc.
<b>HP-B or HP-BS*</b> according to ASTM D 2240	material thickness from 6 mm on medium hard materials of rubber, typewriter rolls, plates
<b>HP-C or HP-CS*</b> according to ASTM D 2240	material thickness from 6 mm on plastics and medium hard rubber materials
<b>HP-DO or HP-DOS*</b> according to ASTM D 2240	material thickness from 6 mm on plastics and medium hard up to hard rubber materials
<b>HP-O or HP-OS*</b> according to ASTM D 2240	material thickness from 6 mm on soft elastic materials, printing rolls, medium fast textiles, nylon, orlon, perlon, rayon
<b>HP-OO</b> according to ASTM D 2240	material thickness from 6 mm on sponge rubber, foam rubber

S\* = maximum indicating pointer

net weight of manual hardness testers: 0,230 kg  
gross weight of manual hardness testers: 0,400 kg

	net weight	gross weight
EXACTA-HARDNESS TESTER HP-A (HP-AS*) with screw-on loading weight in case	1,560 kg	1,800 kg
TEST STAND BS 61 with loading device for hardness tests according to Shore A, Shore B and Shore O	5,500 kg	8,800 kg
TEST STAND BE 62 (230 V ~ 50 Hz or 115 V ~ 60 Hz) with loading device for hardness tests according to Shore A, Shore B and Shore O	7,500 kg	10,000 kg
Additional loading weight 37,5 N for hardness tests according to Shore D, Shore C and Shore DO	4,000 kg	4,500 kg