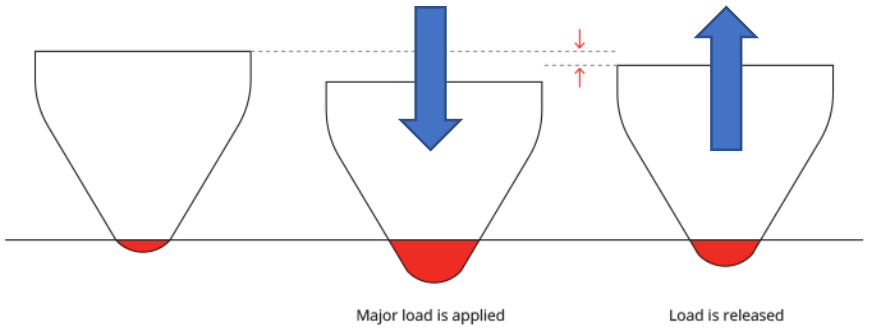
digi test II

2. GENERATION

Automatic Hardness Tester for Shore, IRHD & VLRH

Hardness is one of the most widely measured **properties used to characterize rubber**. There are two scales used throughout the world-

IRHD scale and **SHORE scale**.

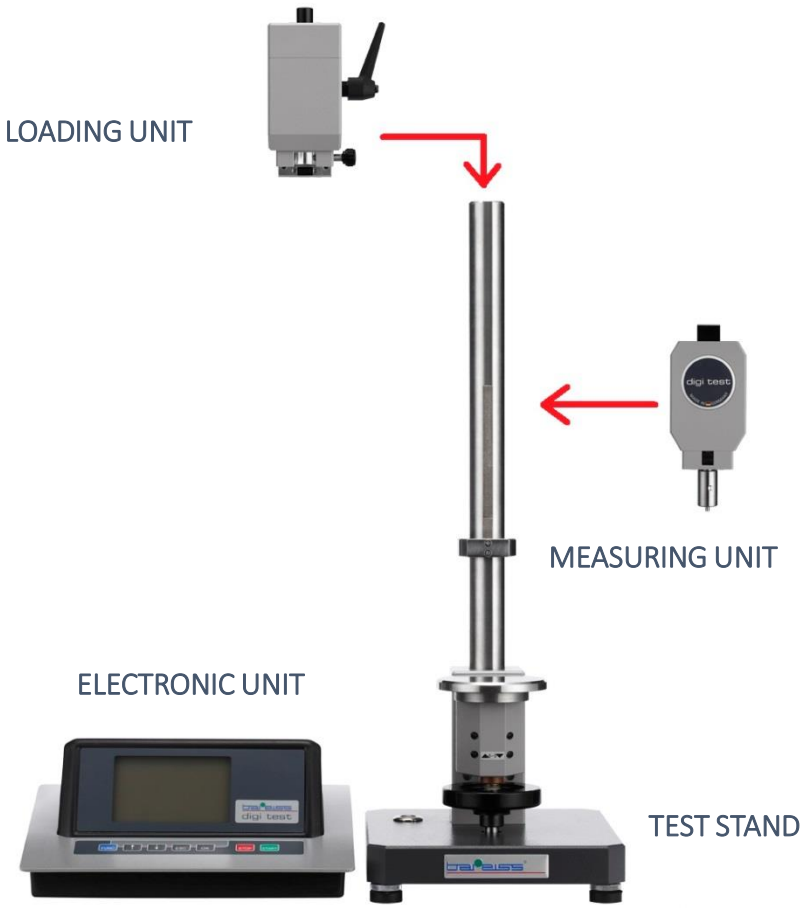


Source: Paper No. 131 by R. Morgans

Hardness testing on finished parts and test buttons with the modular Hardness Tester **digi test II**

…since 1972

Easy to assemble, no tools needed.



A truly *PLUG-N-PLAY* system

Changing the measuring method on digi test II is only about 3 simple steps and it can be completed in just 10 sec.

① Loosen the thumbscrew with your hand

② Plug/Unplug any measuring unit as desired and afterwards, tighten the thumbscrew

③ Simply press „Start“ to enable a hardness test

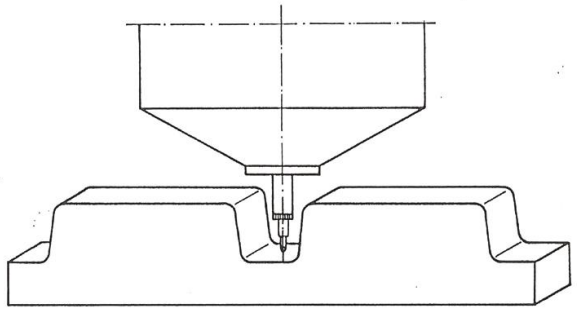
For the complete Shore, IRHD and VLRH range

Standard Buttons

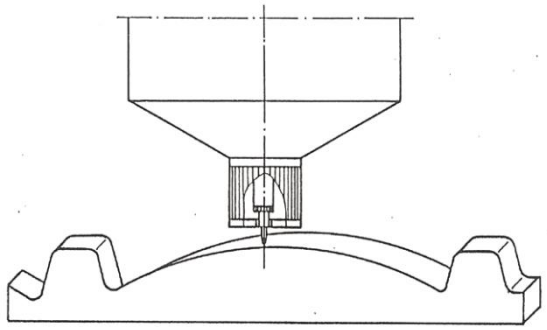
Finished Products

Thin-walled Material

Making hardness testing possible on concave and convex surfaces.



Concave Surface



Convex Surface

Shore A/B/0

Shore D/C/D0

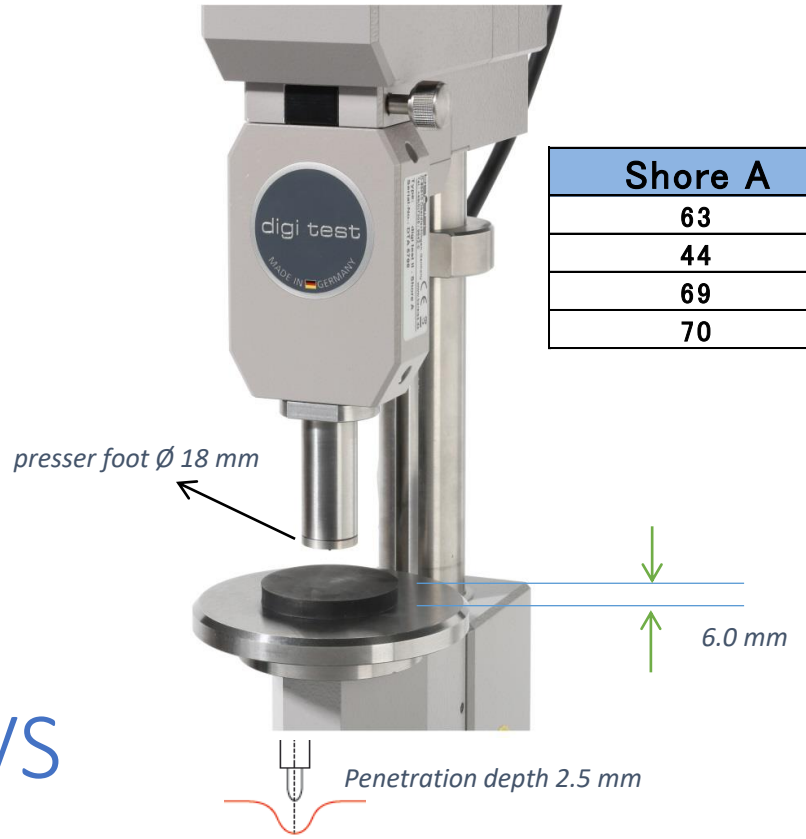
Making hardness testing possible on specimens with a material thickness under 6.0 mm.

micro Shore A micro Shore D

Micro Shore A vs. Shore A

micro Shore A
62
41
67
69

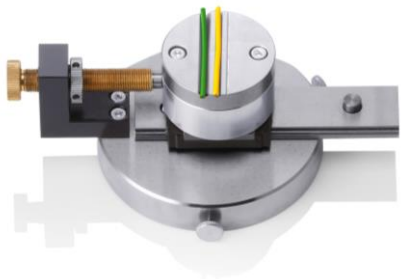
VS

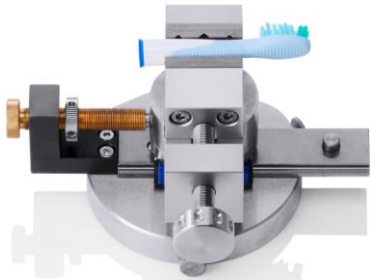


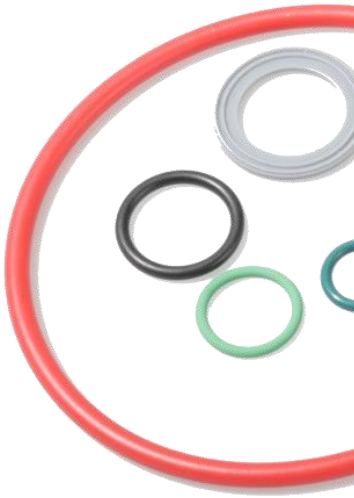
Shore A
63
44
69
70

The technology solely developed by Bareiss to generate comparable Shore A measuring values on specimens from as thin as 1.5 mm to the standard thickness. The solution is widely adopoted by many well-known customers in different industries.

Bareiss offers a wide range of standard/customized sample fixtures.







Hardness testing on finished products. One example:

Embedding compound

Sample fixture

Your choice of using digi test II with or without PC

digi test II can work as a standalone system as the electronic unit not only working as the main control of the system, it also provides basic testing information with its large LCD disply. When more sophisticated data analysis and making a test report are required, a PC in combination with software can be considered.

digi test II with PC and Software

digi test II as a standalone system

ISO/IEC 17025

Bareiss was the **very first DAkkS calibration laboratory** for Hardness Tesing on Ruber and Plastics in Germany.

DAkkS Deutsche Akkreditierungsstelle D-K-15206-01-00

- ✓ Measuring distance
- ✓ Force
- ✓ Indenter (geometry)

DAkkS Deutsche Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV
Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

Accreditation

The Deutsche Akkreditierungsstelle GmbH attests that the calibration laboratory

Bareiss Prüfgerätebau GmbH
Breiteweg 1, 89610 Oberdischingen

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out calibrations in the following fields:

Mechanical quantities
- **Hardness** a)

Material testing machines (MTM)
- **Hardness (MTM)** a)
- **Extension (MTM)** b)
- **Mechanical work (MTM)** b)

a) **also on-site calibrations**
b) **only on-site calibrations**

The accreditation certificate shall only apply in connection with the notice of accreditation of 25.03.2020 with the accreditation number D-K-15206-01. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 8 pages.

Registration number of the certificate: **D-K-15206-01-00**

Braunschweig, 25.03.2020

Dr. Heike Manke
Head of Division

Translation issued: 25.03.2020

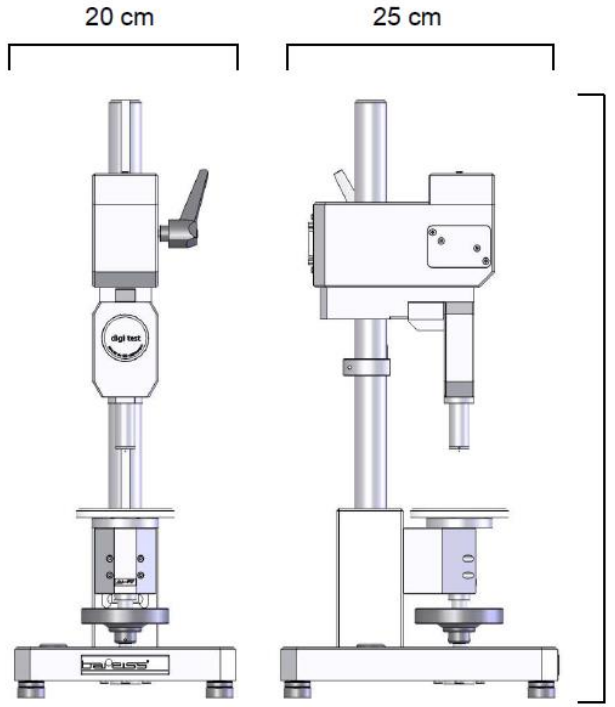
Head of Division

The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH. https://www.dakks.de/en/content/accredited-bodies-dakks

This document is a translation. The definitive version is the original German accreditation certificate.

Weight and Dimensions

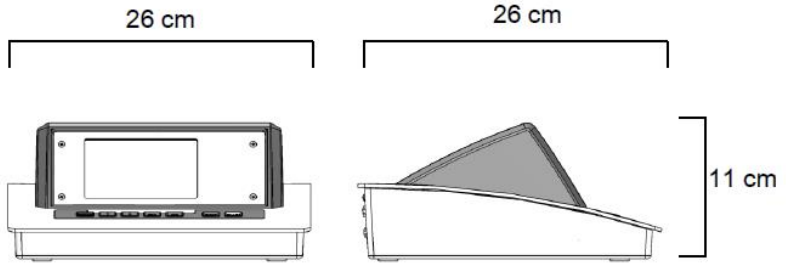
The complete digi test II system weighs not more than 25 kg and stands not more than 60 cm tall.
Its compact size and light weight don‘t compromise the robustness of the structure.
80 % of the system is made of high quality aluminum alloys.



Weight: 14 kg

Technical Specifications

Power Supply	100 – 240 VAC ; 50/60 Hz
Power Consumption	Max. 20 VA
IP Code	20
Display	LCD 240 x 128 Pixel
Resolution	0.1
Data Output	USB / RS 232
Measuring Time	1 – 99 sec



Weight: 2.5 kg

Available scales for
Shore, IRHD and VLRH

bareiss

MEASURING METHOD	STANDARDS	TOTAL FORCE	CLAMPING FORCE	INDENTER	PRESSURE PLATE	MEASURING PATH	MEASURING RANGE
IRHD M	DIN ISO 48-2	153,3 mN	235 mN	Ø 0,395 mm	Ø 3,35 mm	0,3 mm	30 – 100
IRHD N	DIN ISO 48-2	5,7 N	8,3 N	Ø 2,5 mm	Ø 20 mm	1,8 mm	30 – 100
IRHD H	DIN ISO 48-2	5,7 N	8,3 N	Ø 1,0 mm	Ø 20 mm	0,44 mm	85 – 100
IRHD L	DIN ISO 48-2	5,7 N	8,3 N	Ø 5,0 mm	Ø 22 mm	2,08 mm	9,9 – 34,9
VLRH	DIN ISO 48-3	100,0 mN	250 mN	Ø 2,5 mm	Ø 6,0 mm	1,0 mm	0 – 100
Pusey & Jones	ASTM D531 DIN ISO 48-8	1000 g	-	Ø 3,175 mm	-	3,0 mm	0 – 300
Gelomat 0 – 2 N		2 N	-	Ø 3,57 mm	-	2,5 mm	0 – 2
Gelomat 0 – 20 N		20 N	-	Ø 10,0 mm	-	2,5 mm	0 – 20
Shore A	ASTM D2240 EN ISO 868 DIN ISO 48-4	8050 mN	1 kg	35°	Ø 18 mm	2,5 mm	0 – 100
S. AM/M	ASTM D2240 DIN ISO 48-4	764 mN	250 g	30°	Ø 9 mm	1,25 mm	0 – 100
Shore E	ASTM D2240	8050 mN	1 kg	Ø 5 mm	≥ 500 mm²	2,5 mm	0 – 100
Shore A0	DIN ISO 48-4	8050 mN	1 kg	Ø 5 mm	≥ 500 mm²	2,5 mm	0 – 100
L / L/c		8050 mN	1 kg	Ø 5 mm	Ø 18 mm	2,5 mm	0 – 100

Available scales for Shore, IRHD and VLRH

Shore D	ASTM D2240 EN ISO 868 DIN ISO 48-4	44450 mN	5 kg	30°	Ø 18 mm	2,5 mm	0 – 100
Shore B	ASTM D2240	8050 mN	1 kg	30°	Ø 18 mm	2,5 mm	0 – 100
Shore C	ASTM D2240	44450 mN	5 kg	35°	Ø 18 mm	2,5 mm	0 – 100
Shore D0	ASTM D2240	44450 mN	5 kg	3 / 32“	≥ 500 mm²	2,5 mm	0 – 100
Shore 0	ASTM D2240	8050 mN	1 kg	3 / 32“	Ø 18 mm	2,5 mm	0 – 100
Shore 00	ASTM D2240	1111 mN	400 g	3 / 32“	≥ 500 mm²	2,5 mm	0 – 100
Shore 000	ASTM D2240	1111 mN	400 g	r = 6,35	≥ 500 mm²	2,5 mm	0 – 100
Shore 000 S	ASTM D2240	1.932 mN	400 g	r = 10,70	≥ 500 mm²	5,0 mm	0 – 100
M Shore A	TD 00002001	108 mN	235 mN	30°	Ø 6 mm	1 mm	0 – 100
M Shore D	TD 00002002	9120 mN	500 g	30°	-	0,9 mm	5,4 – 82,5
Asker C	SRIS 0101	8,382 N	1 kg	Ø 5,08 mm	≥ 500 mm²	2,54 mm	0 – 100
Asker F	Factory Standard	4,462 N	0,5 kg	Ø 25,2 mm	Ø 80 mm	2,5 mm	0 – 100
Barcol	ASTM D2583 DIN EN 59	71,3 N	10 kg	26°	Ø 2 mm	0,76 mm	0 – 100

SOFT — MEDIUM — HARD

Please contact Bareiss for any questions.

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