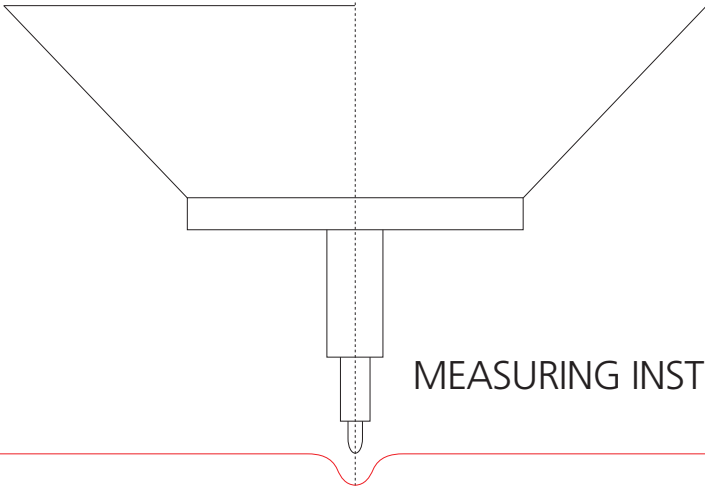


NEURTEK

i n s t r u m e n t s

bareiss[®]



MEASURING INSTRUMENTS FOR THE FOLLOWING INDUSTRIES

RUBBER AND PLASTIC PROCESSING INDUSTRY

AUTOMOTIVE INDUSTRY

MEDICAL TECHNOLOGY

LABORATORIES | INSTITUTES

AVIATION INDUSTRY

FOOD INDUSTRY

OPTICAL

CHEMISTRY

PHARMACEUTICAL

COSMETICS INDUSTRY

AND MORE ...

**MEASURABLE SUCCESS -
QUALITY HAS A NAME**



QUALITY HAS A NAME – BAREISS

AS A MANUFACTURER FOR INNOVATIVE AND CERTIFIED MEASURING INSTRUMENTS, WE BEAR THE RESPONSIBILITY FOR QUALITY ASSURANCE.

In order to meet the expectations for high quality, usability and sustainability of Bareiss products from our customers worldwide, we are constantly striving to optimize our production processes with precise planning, controlling and monitoring.

The Bareiss management system DIN EN ISO 9001:2008 and the Bareiss environmental management DIN EN ISO 14001:2004 are based on a functional and comprehensive organization. We are pursuing continuous improvement, market and customer orientation, uncompromising quality of products, employee satisfaction and environment protection and all of which are the key elements of our success.

WHY CALIBRATION?

As technology is becoming more complex today, the verification and documentation of quality are becoming more demanded as well. The quality of measuring instruments has always been asked for high standard and it therefore provides a good reason why calibration is a must in certain cases.

- ISO serves as a common guideline to unify quality assurance procedure. For a company to be certified for DIN EN ISO 9001, it is obliged to strictly monitor their testing procedure and the instruments used should be calibrated, maintained and documented periodically. It is then this company can prove that all the required standards are completely compliant.
- As part of the quality assurance procedure, it is important that all measuring instruments are properly calibrated and maintained so that they can be used to ensure the liability of your products. This is a way to eliminate the possible cause of your measuring instruments should there be any incorrect measuring results or damage of your products.

BAREISS –
German accreditation body

What requires additionally to succeeding in this competitive market today are the right focus and meeting customer demands in a timely manner.

Since 1954 Heinrich Bareiss Prüfgerätebau GmbH has always been the technology leader for elastomer hardness test engineering. As his family members, we carry on the philosophy and vision of the founder Mr. Heinrich Bareiss and reflect them on our products and solutions which are successfully implemented worldwide today.

Our goal is to maintain the leading position on the market with high reliability of our products. It is a continuous challenge in the future for being the market leader and your reliable partner as we always have been.

Yours Brigitte Wirth
Commercial Manager

WHAT IS CALIBRATION?

When a measuring instrument is being calibrated, the given deviation is determined by various measurements versus standard references. A calibration certificate is then issued indicating the measuring results and the corresponding measurement uncertainties and the instrument is marked as calibrated. All documents together with the calibration certificate provide traceability of national standards.

WHO CAN DO CALIBRATION?

The DAkks/DKD-calibration laboratories are among industrial companies, research institutes, technical authorities and inspection and testing institutes and all of which are accredited and monitored by the German accreditation body. These laboratories are authorized to perform calibration services on measuring instruments and material measures according to the officially defined procedures and measuring ranges. The DAkks/DKD-calibration certificates are issued by these laboratories as a proof of traceability of national standards as required by DIN EN ISO 9001 and DIN EN ISO/IEC 17025.

Bareiss as an official DAkks/DKD-calibration laboratory can perform calibration services on a wide range of material testing instruments on-premises and in the field and issue the official calibration certificates for them.

Yours Peter Strobel,
Technical Manager, head of the quality laboratory



OUR SERVICES

CALIBRATION – REMINDER SERVICE

WE ARE OFFICIALLY LISTED UNDER THE RANGE OF MATERIAL TESTING MACHINES AT THE GERMAN ACCREDITATION BODY.

INSTRUMENTS ON LOAN

- Substitution while your instruments are being serviced at Bareiss
- A temporary solution when your testing facility is fully occupied

MAINTENANCE

We encourage a periodic calibration and maintenance services on your instruments to ensure the best condition of your quality control equipment.

MEASURING SERVICES AVAILABLE

PROVIDE MEASURING SERVICE ON YOUR SPECIMEN WITH A TEST PROTOCOL.

It is a quick and simple solution if you don't require frequent measuring or don't have the right equipment. Your specimens will be returned to you with a test protocol.

TRAINING COURSE



TRAINING
For the topic of hardness testing on rubber and plastic materials

TARGET GROUP
Development engineers and quality control technicians

PURPOSE
To demonstrate correct hardness testing procedure and understanding of the standards which prescribe different hardness testing methods

TAILOR-MADE TRAINING COURSE
If you need a training course which is made to suit your areas of interest, please let us know and we will try to arrange a tailor-made course for you.



DAKKS / DKD CALIBRATION CERTIFICATE



The calibration is carried out acc. to DIN ISO 7619, DIN EN ISO 868

Pressure plate and indenter

| Measure | Set value | Actual value | Uncertainty of Measurement |
|----------------------------------|---|---------------------------------|----------------------------|
| Angle α acc. to picture 1 | $90^\circ \pm 0,25^\circ$ | $90,058^\circ$ | $\pm 0,07^\circ$ |
| Measure b acc. to pic. 1 | $\varnothing (1,25 \pm 0,15) \text{ mm}$ | $\varnothing 1,350 \text{ mm}$ | $\pm 2,0 \mu\text{m}$ |
| Measure d acc. to pic. 1 | $\varnothing (0,79 \pm 0,01) \text{ mm}$ | $\varnothing 0,793 \text{ mm}$ | $\pm 2,0 \mu\text{m}$ |
| Measure a acc. to pic. 1 | $\varnothing (3,00 \pm 0,10) \text{ mm}$ | $\varnothing 3,010 \text{ mm}$ | $\pm 0,01 \text{ mm}$ |
| Measure f acc. to pic. 1 | $\varnothing (18,00 \pm 0,10) \text{ mm}$ | $\varnothing 17,980 \text{ mm}$ | $\pm 0,05 \text{ mm}$ |
| Measure c acc. to pic. 1 | $(2,50 \pm 0,02) \text{ mm}$ | $2,504 \text{ mm}$ | $\pm 3,0 \mu\text{m}$ |

Measuring distance of the indenter

| Shore-Hardness-degree | Set value [mm] | Actual value [mm] | Uncertainty of Measurement [μm] |
|-----------------------|----------------|-------------------|--|
| 0 | 2,500 | 2,504 | $\pm 3,0$ |
| 10 | 2,500 | 2,507 | $\pm 3,0$ |
| 20 | 2,500 | 2,507 | $\pm 3,0$ |
| 30 | 1,750 | 1,747 | $\pm 3,0$ |
| 40 | 1,500 | 1,497 | $\pm 3,0$ |
| 50 | 1,250 | 1,247 | $\pm 3,0$ |
| 60 | 1,000 | 0,994 | $\pm 3,0$ |
| 70 | 0,750 | 0,746 | $\pm 3,0$ |
| 80 | 0,500 | 0,495 | $\pm 3,0$ |
| 90 | 0,250 | 0,250 | $\pm 3,0$ |
| 100 | 0,000 | 0,000 | $\pm 3,0$ |

Spring force

| Shore-Hardness-degree | Set value [mN] | Actual value [mN] | Uncertainty of Measurement [mN] |
|-----------------------|----------------|-------------------|---------------------------------|
| 0 | 537,5 | 530,5 | $\pm 3,0$ |
| 10 | 537,5 | 527,9 | $\pm 3,0$ |
| 20 | 2800 | 2923,1 | $\pm 3,0$ |
| 30 | 2800 | 2792,0 | $\pm 3,0$ |
| 40 | 3550 | 3530,4 | $\pm 3,0$ |
| 50 | 4300 | 4281,8 | $\pm 3,0$ |
| 60 | 5050 | 5055,3 | $\pm 3,0$ |
| 70 | 5800 | 5785,9 | $\pm 3,0$ |
| 80 | 6550 | 6561,5 | $\pm 3,0$ |
| 90 | 7300 | 7297,1 | $\pm 3,0$ |
| 100 | 8050 | 8037,5 | $\pm 3,0$ |

Remark:
The indication of the measured values is in compliance with DIN ISO 7619, DIN EN ISO 868 acc. to Shore A and DIN ISO 18898. The indicated values are valid for the measuring technical characteristics of the hardness tester at the moment of calibration. The mentioned tolerance limit of 1 Shore-hardness degree is kept. Indicated is the expanded uncertainty of measurement, which results from the standard uncertainty of measurement through multiplication with the expansion factor $k=2$ (double standard deviation). It has been determined according to document DAAKS-DKD-3. The value of the measurement quantity is within the classed interval of values with a probability of 95 %. Measured values, which are outside the allowed tolerances or which are special measures outside the standards, should be indicated by (*).

ON-PREMISES / FIELD CALIBRATION SERVICE

| WHAT WE CALIBRATE | WHAT IS BEING CALIBRATED |
|---|---|
| Analog and digital durometers A, D, AM, M, A0, 00,000, E in Shore scales and L, L/c, Barcol in non-Shore scales | Measuring distance and spring force |
| Indenter Shore A | Diameter of indenter shaft, measurements and angles of indenter tip |
| Presser foot, Shore A, D, AM, M, A0, 00, 000 IRHD M, N, L, H, hardness L, L/c, VLRH | Outer diameter and drilling diameter |
| Indenter Shore D, AM, M | Diameter of indenter shaft, measurements and angles of indenter tip |
| Hardness tester IRHD N, L, M, H, VLRH | Measuring distance, Pre-force and main force, total force, contact pressure |
| Indenter: IRHD N, L, M, H, Shore A0, 00, E, hardness L, L/c, Pusey & Jones, VLRH | Diameter of indenter shaft, measurements and angles of indenter tip |
| Control rings for measuring distance: Shore 20, 40, 60, 80 | Measuring distance |
| Check device: Shore A and D | Spring force |
| Indenter: Shore 000 | Ball radius |
| Indenter: Barcol | Diameter of indenter shaft, measurements and angles of indenter tip |
| Presser foot: Shore E | Surface of presser foot and drilling diameter |
| Pusey & Jones | Measuring distance and total force |
| Standard rubber block | Shore A, D, AM, M, A0, 00, 000, E, hardness L, L/c, IRHD N, L, H, M, VLRH, Pusey & Jone |
| Standard block metal | Barcol |
| Calibration: procedure | Brinell, Vickers |
| Calibration: procedure | Rockwell |
| Hardness testing machines Brinell and Vickers | Measuring distance |
| Hardness testing machines Rockwell and Ball indentation | Measuring distance |
| Hardness testing machines and force measuring device | Force |

Download under www.bareiss.de/service. For the complete calibration options

PRODUCT- / APPLICATION TABLE

HARDNESS TESTING

| MEASURING METHOD | STANDARDS | RANGES OF APPLICATION | MATERIAL THICKNESS mm | PAGE |
|----------------------|---|---|-----------------------|--------------|
| Shore A | DIN EN ISO 868, DIN ISO 7619 ASTM D 2240 | Soft rubber, Elastomers, Natural rubber products, Neoprene, Cast resin, Polyester, Soft-PVC, Leather | 4, 6 | 8, 9, 14, 15 |
| Shore A0, E, L + L/c | DIN ISO 7619, ASTM D 2240 | Foam, Soft elastic materials, Upholstery, Steering wheels | 6 | 8, 9 |
| Micro Shore A | | Bareiss standard as Shore A | 0,5 | 14, 15 |
| Shore D | DIN EN ISO 868, DIN ISO 7619 ASTM D 2240 | Hard rubber, Plastics, Acryl glass, Polystyrene, Rigid thermoplastic, Laminated Plastic, Print rollers, Vinyl-plates, Cellulose-acetate | 4, 6 | 8, 9, 14, 15 |
| Micro Shore D | | Bareiss standard as Shore D | 0,5 | 14, 15 |
| Shore B | ASTM D 2240 | Medium hard rubber | 6 | 8, 9, 14, 15 |
| Shore C | ASTM D 2240 | Plastics and medium hard rubber | 6 | 8, 9, 14, 15 |
| Shore D0 | ASTM D 2240 | Plastics and medium hard rubber | 6 | 8, 9, 14, 15 |
| Shore O | ASTM D 2240 | Soft elastic materials, Medium hard print rollers, Textile fabrics, Nylon, Orlon, Perlon, Rayon | 6 | 8, 9, 14, 15 |
| Shore 00 000 | ASTM D 2240 | Cellular rubber, Foam rubber | 6 | 8, 9, 14, 15 |
| Shore 000S | ASTM D 2240 | Silicone, Gel-like materials | 6 | 8, 9, 14, 15 |
| Shore AM, M | DIN ISO 7619, ASTM D 2240 | Soft rubber, Elastomers, Natural rubber products | 1,25, 1,50 | 11, 14, 15 |
| Asker C | SRIS 0101 | as Shore A | 6 | 8, 9 |
| Asker CS | SRIS 0101 | as Shore D | 6 | 8, 9 |
| Asker F | Manufacturer standard | Foam | | 8, 9 |

| MEASURING METHOD | STANDARDS | RANGES OF APPLICATION | MATERIAL THICKNESS mm | PAGE |
|---------------------------------|---|---|-----------------------|------------|
| VLRH | DIN ISO 27588 | Cellular rubber, Foam rubber, Silicone, Gel-like materials | 2 | 13, 14 |
| IRHD M | DIN ISO 48 | Soft rubber, Highly flexible materials, Soft deformable materials | 0,6 – 5,0 | 12, 13, 14 |
| IRHD N | DIN ISO 48 | Soft rubber, Highly flexible materials, Soft deformable materials | 6 – 10 | 12, 13, 14 |
| IRHD L | DIN ISO 48 | Cellular rubber, Foam rubber, Silicone, Gel-like materials | 10 – 12 | 13, 14 |
| IRHD H | DIN ISO 48 | Hard materials as Shore D | 6 – 10 | 13, 14 |
| Pusey & Jones | ISO 7267-3, ASTM D 531 | Rubber or rubber-like materials, rubber rollers of paper industry | 13 | 10 |
| Barcol | DIN EN 59, ASTM D 2583 | Fiberglass reinforced plastics, duroplastics, hard thermoplastics, aluminum etc. | 1,5 | 10 |
| Newton | Bareiss Norm | Gelatin, Gelatin capsules, Plasticine | | 22 |
| Asphalt 3106 | DIN 1996-13 | Asphalt | | 21 |
| Building plaster 3106 | DIN EN 13279 | Building plaster | | 21 |
| Ball indentation 3106 | DIN EN ISO 2039-1 | Plastic materials | | 21 |
| Rockwell 3106 | DIN 51917, DIN EN ICE 413 | Carbon materials | | 21 |
| Rockwell 3106 | DIN EN 10109-1, ASTM E 18, ASTM D 785 | Metal | | 21 |
| Vickers | DIN ISO 6507, CHD – DIN EN 2639 CDD (EHT), DIN 10328, DS (RHT), DIN 50190, part 3 (NHT) | Low-load force HV 0,1 to HV 10 Micro-load force HV 0,01 to HV 2 | | 24, 25 |
| Abrasion test | DIN ISO 4649, ASTM D 5963 | Measuring the resistance of elastomers against abrasion on rubber products like tires, conveyor belts, tubes, shoes, floor coatings | | 20 |
| Elasticity test Ball rebound | DIN EN ISO 8307, ASTM D 3574 | Elasticity test on polymer foams | 50 | 16 |

| MEASURING METHOD | STANDARDS | RANGES OF APPLICATION | MATERIAL THICKNESS mm | PAGE |
|----------------------------|---|--|-----------------------|------|
| Elasticity test Rebound | DIN 53512, DIN 53573, ISO 4662, ASTM D 1054 | Measuring the elastic characteristics of elastomers Specimen thickness >12 mm | 12 | 17 |
| kal-rock | DIN 53512, DIN 53573, ISO 4662, ASTM D 1054 | Calibration device for the depth measuring of hardness test machines | | 21 |

OTHER PRODUCTS

| SPECIMEN PREPARATION | STANDARDS | RANGES | APPLICATION | PAGE |
|---|--|-------------------|---|--------|
| Cutting press Cutting dies Circular cutting die | | Diverse standards | Manual cutting of ring-shaped, bar-shaped and other shapes of elastomer specimens, cutting of specimen Ø 16,2 mm | 18, 19 |
| Centering devices Positioning device | | | Precise centering of tubes and O-rings, Optical and Automatic centering, Two-point hardness and thickness measuring | 13 |
| Check device | DIN ISO 7619, DIN EN ISO 868, ASTM D 2240 | | Control of spring characteristics | 23 |
| Control ring | | | Control of measuring distance | 23 |
| Standard rubber blocks | DIN ISO 7619, DIN ISO 48, DIN EN 59, ASTM D 2583 | | Control of Shore, IRHD and Barcol hardness values | 23 |
| Software | | | Data processing | 26 |
| Calibration service | DAkks / DKD | | German accreditation body On-premises and field calibration services Official calibration certificates Volume of accreditation | 4 |
| Technical data Ranges of application | | | | 27 |

BAREISS PRODUCT RANGE

| MODEL NAME | PAGE |
|--------------------------------|------|
| HP | 8 |
| HPE II | 8 |
| HPE II L, HPE II KFZ Interieur | 9 |
| HPE II Shore AM, Shore M | 11 |
| HPE II Barcol | 10 |
| HPE II Pusey & Jones | 10 |
| BS 61 II | 9 |
| IRHD Compact III | 12 |
| digi test II | 14 |
| Centrofix, Barofix, Barofix II | 13 |
| V-Test II Basic | 24 |
| SP 1000 | 18 |
| SP 4000 | 18 |
| kal-rock | 21 |
| Gelomat II | 22 |
| 3106 | 21 |

HP / HPE II

MEASURING METHOD

SHORE A/A0/B/0/C/D/D0/00/000/000S/E/L/C/ASKER C/CS/F
HPE II CAR INTERIORS
Options of indenter: ball 10 or 15 mm

STANDARDS

DIN ISO 7619/DIN EN ISO 868/NF EN ISO 868/ASTM D 2240/
SRIS 0101

RANGES OF APPLICATION

These models are for the hardness measuring on composite materials, soft elastic materials, elastomers and plastics.

Suitable for hardness measuring on flat and even surfaced specimens with diameter ≥ 35 mm and thickness ≥ 6 mm prescribed under standards.

ACCESSORIES

- DAkkS/DKD-calibration certificate for the instrument
- Test stand BS 61 II according to measuring method
- Loading weight of 4,0 kg for Shore D in combination with BS 61 II
- Prisms 120° / 150° for HPE II
- Check device for control of spring force Shore A and D
- Control of measuring distance with control ring 20, 40, 60, 80 for Shore A/B/0/00/C/D0/A0/E/Asker C/Asker CS
- DAkkS/DKD-calibration certificates for control rings
- Software for data transfer and analysis
- Standard rubber block in set of 1/3/6 pcs with DAkkS/DKD-calibration certificate

POWER SUPPLY:
Lithium-battery
BATTERY DURATION:
approx. 2000 hours
IP CODE
IP 30
RESOLUTION:
0.1 for Shore and car interiors – ball 15
0.01 for car interiors – ball 10
MEASURING RANGES
Shore / Asker / Car interiors
DATA OUTPUT:
RS 232 - 9600 baud, 1 start bit,
8 data bits, 1 stop bit
MEMORY:
300 measurements
DIMENSIONS (LxWxH)
HP: 75 x 65 x 25 mm
HPE II: 160 x 70 x 40 mm
Product Case: 240 x 210 x 55 mm
BS 61 II: 160 x 200 x 360 mm
WEIGHT
HP: 0.23 kg
HPE II: 0.4 – 0.6 kg
Product Case: 0.50 kg
BS 61 II: 6.0 kg



HPE II



HP II KFZ Interior



HPE II L



HPE II



HP



Test stand BS 61 II with HPE II and loading weight



Control Ring 40 Shore with base plate

Prisms

HPE II BARCOL/PUSEY & JONES

STANDARDS

BARCOL
DIN EN 59/ASTM D 2583

PUSEY & JONES
ISO 7267-3/ASTM D 531

RANGES OF APPLICATION

BARCOL
This hardness method is for the hardness measuring on fiberglass reinforced plastics, thermoset, hard thermo plastics, aluminum and etc.

PUSEY & JONES
This hardness method is for the hardness measuring on rubber or rubber-like materials and rubber rollers in the paper industry.

ACCESSORIES

- DAkkS/DKD-calibration certificate for the instrument
- Test stand for HPE II Barcol
- Software for data transfer and analysis
- Standard test block with DAkkS/DKD-calibration certificate

POWER SUPPLY:
Lithium-battery 3.6 v, size ½ AA

BATTERY DURATION:
approx. 2000 hours

IP CODE:
IP 30

RESOLUTION
± 1 BARCOL
1 Pusey & Jones

MEASURING RANGES:
BARCOL/Pusey & Jones

DISPLAY RANGE:
Barcol: 0 - 100
Pusey & Jones: 0 - 300

DATA OUTPUT:
RS 232 - 9600 baud, 1 start bit,
8 data bits, 1 stop bit

MEMORY:
300 measurements

DIMENSIONS (LxWxH)
HPE II Barcol: 160 x 70 x 40 mm
HPE II Pusey & Jones: 250 x 90 x 130 mm
Product Case: 240 x 210 x 55 mm

WEIGHT
HPE II Barcol: 0.37 kg
HPE II Pusey & Jones: 3.30 kg
Product Case: 0.50 kg



HPE II Pusey & Jones



HPE II Barcol

HPE II SHORE AM/M

STANDARDS

DIN ISO 7619/ASTM D 2240

RANGES OF APPLICATION

Hardness measuring on soft and elastic elastomers and natural rubber products
Minimum specimen thickness for Shore AM = 1.25 mm
Minimum specimen thickness for Shore M = 1.50 mm

BASIC CONFIGURATION

- Test stand with automatic lowering speed of max. 3.2 mm/s ; automatic force loading
- Measuring device HPE II Shore AM or HPE II Shore M

ACCESSORIES

- DAkkS/DKD-calibration certificate for the instrument
- Barofix – O-ring centering device with clamps and large support surface
- Centrofix – Tubes and hoses centering device
- Software for data transfer and analysis
- Standard rubber blocks in set of 1/ 3/ 6 pcs with DAkkS/DKD-calibration certificate

IP CODE:
IP 30

RESOLUTION:
0.1 Shore

MEASURING RANGES:
Shore

DATA OUTPUT:
RS 232 / 100 – 240 VAC; 50 / 60 Hz

MEMORY:
300 measurements

DIMENSIONS (LxWxH)
Test stand: 160 x 200 x 360 mm
Measuring device: 160 x 80 x 140 mm

WEIGHT
Test stand: 3.5 kg
Measuring device: 0.7 kg



HPE II Shore AM/M



IRHD COMPACT III

STANDARDS

DIN ISO 48/NFT 46-003/JIS K 6253/BS 903 PART A26

RANGES OF APPLICATION

Both IRHD M and IRHD N are for the hardness measuring of soft rubber, rubber-like materials and soft deformable materials.

ACCESSORIES

- DAkkS/DKD-calibration certificate for the instrument
- Integrated magnifier with a magnification of 2.5 times
- DAkkS/DKD-calibration certificate for IRHD M and IRHD N indenters
- Barofix - O-ring centering device with clamps and large support surface
- Centrofix - Tubes and hoses centering device
- Software for data transfer and analysis
- Standard rubber blocks in set of 1/ 3/ 6 pcs with DAkkS/DKD-calibration certificate



IRHD Compact III

POWER SUPPLY:

Power adapter
Input: 100 – 240 VAC ; 50 / 60 Hz
Output: 3.3 VDC

IP CODE

IP 30

RESOLUTION:

0.1 IRHD

MEASURING RANGES:

IRHD M/IRHD N

MEASURING TIME

1 – 99 s

DATA OUTPUT:

V24 RS 232 - 9600 baud, 1 start bit,
8 data bits, 1 stop bit

DIMENSIONS (LxWxH)

Test stand: 200 x 250 x 570 mm

IRHD M measuring device:

160 x 100 x 140 mm

IRHD N measuring device:

100 x 100 x 150 mm

WEIGHT

Test stand: 9.0 kg

Loading device for IRHD N: 0.7 kg

IRHD M measuring device: 1.4 kg

IRHD N measuring device: 1.3 kg

QUICK CENTERING- / POSITIONING DEVICES

RANGES OF APPLICATION

Multiple options of positioning device for quick and precise positioning of specimens. Tailor-made solutions are available too.

CENTROFIX

Tubes and hoses centering device

BAROFIX

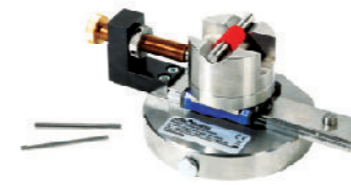
O-ring centering device with clamps and large support surface for O-ring with cord diameter of 3 ranges, 0.6 – 5.0 mm, 0.6 – 8.0 mm and 4.0 – 20.0 mm

BAROFIX II

Fully automatic positioning device for various shapes of specimens. Additional features for double-point and thickness measurement on O-rings



Barofix II



Centrofix



Customized version



Barofix



Customized version



Barofix



Customized version

DIGI TEST II

MEASURING METHODS

Shore A/A0/B/0/C/D/D0/00/000/0005/E/M Shore A/M
Shore D/Shore AM/Shore M/
IRHD L/IRHD N/IRHD M/IRHD H/VLRH

STANDARDS

DIN ISO 7619/DIN EN ISO 868/ASTM D 2240/DIN ISO 48/
DIN ISO 27588/NFT 46-003/JIS K 6253

RANGES OF APPLICATION

Mainly used in QA department for hardness measuring on finished products and standard specimens in the rubber and plastics industries.

The digi test II is a fully automatic system which is free from operator influence. The system can perform hardness measuring on all types of elastomeric material, polymer and plastics.

BASIC CONFIGURATION

The basic digi test II configuration consists of a test stand, a loading unit, a measuring unit and an electronic unit.

The measuring units are interchangeable with plug-and-play feature. The system can automatically detect the type of the plugged in measuring unit and be ready to work instantly.

The measuring units are available in the following options:
SHORE A / B / 0, SHORE D / C / D0, SHORE 00, MICRO SHORE A, MICRO SHORE D, SHORE AM / M, IRHD L, IRHD N, IRHD M, IRHD H, VLRH

POWER SUPPLY:

100 – 240 VAC; 50/60 Hz

IP CODE:

IP 30

RESOLUTION:

0.1

MEASURING RANGES:

The complete range of Shore and IRHD scales

MEASURING TIME

1 – 99 s

DATA OUTPUT:

USB

V24 RS 232 - 9600 baud, 1 start bit, 8 data bits, 1 stop bit

DISPLAY:

LCD-graphic display (240x128 pixel) with brightness selectable LED illumination

DIMENSIONS (LxWxH)

Test stand: 200 x 250 x 570 mm

Loading unit: 165 x 135 x 60 mm

Measuring unit: 150 x 70 x 60 mm

Electronic unit: 260 x 260 x 110 MM

WEIGHT

Test stand: 9.0 kg

Loading unit: 3.0 kg

Measuring unit: 0.4 – 1.8 kg

Electronic Unit: 2.0 kg

ACCESSORIES

- DAkKS/DKD-calibration certificate for the instrument
- Magnifier with magnification of 2.5 times
- Indenters for the complete ranges of IRHD and Shore scales with DAkKS/DKD-calibration certificate
- Barofix - O-ring centering device with clamps and large support surface
- Barofix II - fully automatic positioning device for various shapes of specimens. Additional features for double-point and thickness measurement on O-rings.
- Centrofix - tubes and hoses centering device
- Software for data transfer and analysis
- Standard rubber blocks in set of 1/ 3/ 6 pcs with DAkKS/DKD-calibration certificate



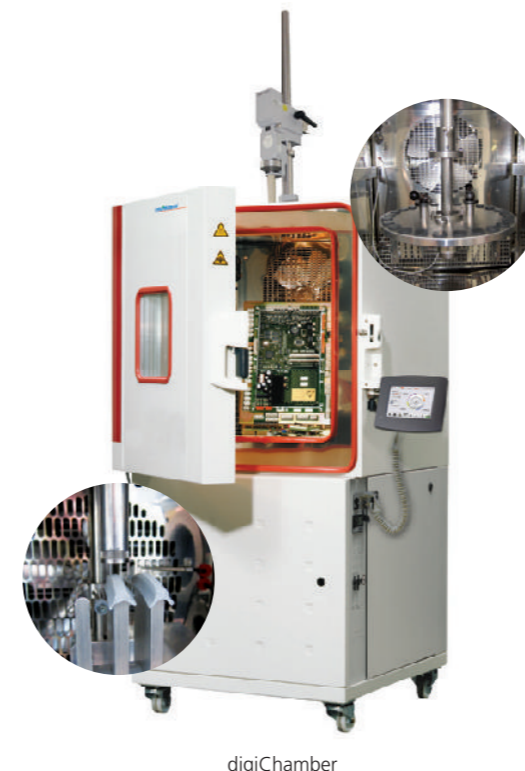
M Shore A



Cutting device



digi test II Basic configuration



digiChamber



digi test II with IRHD M and Barofix

BALL REBOUND TESTER

STANDARDS

DIN EN ISO 8307 / ASTM D 3574

RANGES OF APPLICATION

For measuring the rebound resilience of polymer foams

BASIC CONFIGURATION

Consists of a test stand, a 500-mm down pipe and an electronic unit
The results are read in actual and median values in %

ACCESSORIES

- Works calibration certificate for the instrument
- 460-mm down pipe
- Software for data transfer and analysis

POWER SUPPLY:

Power adapter
Input: 100 – 240 VAC ; 50 / 60 Hz

IP CODE:

Electronic unit: IP 30

Down pipe: IP 20

MEASURING RANGES:

Ball rebound elasticity

DATA OUTPUT:

V24 RS 232 - 9600 baud, 1 start bit,
8 data bits, 1 stop bit

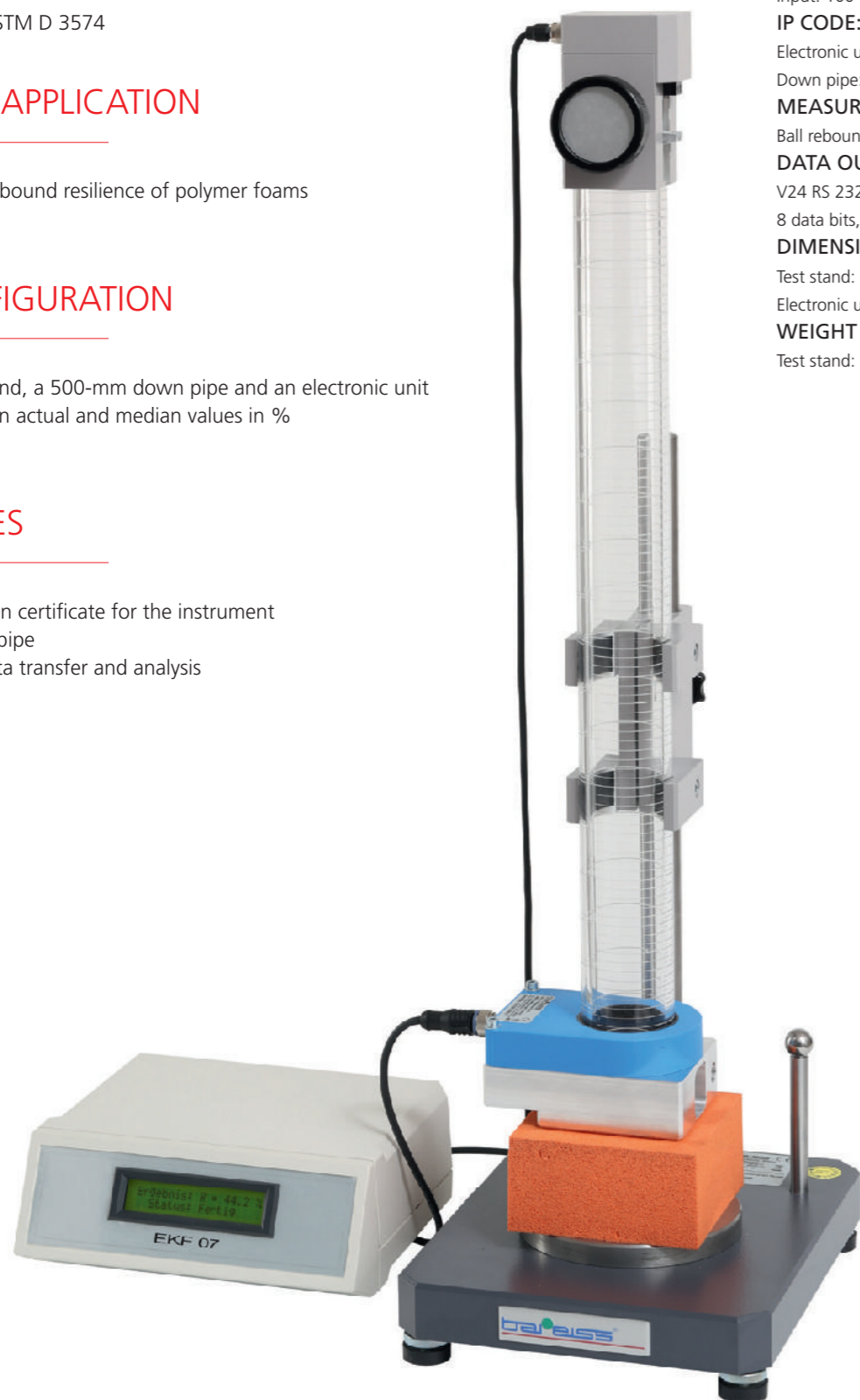
DIMENSIONS (LxWxH)

Test stand: 200 x 250 x 600 mm

Electronic unit: 200 x 171 x 90 mm

WEIGHT

Test stand: 9.0 kg



Ball Rebound-Tester

REBOUND ELASTICITY TESTER II

WITH AUTOMATION / HEATING MODULE

STANDARDS

DIN 53512 / DIN 53573 / ISO 4662 / ASTM D 1054 / NF ISO 4662

RANGES OF APPLICATION

For measuring the resilience characteristics of elastomers with hardness ranges from 30 to 85 Shore A or IRHD N.

BASIC CONFIGURATION

The main instrument with 1 option of anvil and the electronic unit

ACCESSORIES

- Manufacturer calibration certificate for the instrument
- Anvil plate
- Heating module



Selectable temperature ranges from 10 °C to max. 100 °C on the contact surface of the specimen.
A second specimen can be preconditioned at the same time.
Diameter of specimens 29 – 53 mm, thickness of specimens 12 mm



Rebound elasticity tester with heating module



Rebound elasticity tester II

POWER SUPPLY:

Input: 100 – 240 VAC ; 50 / 60 Hz

IP CODE:

IP 30

RESOLUTION:

0.1 %

MEASURING RANGES:

Rubber resilience

DATA OUTPUT:

V24 RS 232 - 9600 baud, 1 start bit,
8 data bits, 1 stop bit

LENGTH OF PENDULUM:

200 mm

ANGLE OF INCIDENCE:

90°

IMPACT VELOCITY:

2 m/s

ADJUSTMENT FOR SPECIMEN THICKNESS

0 ... 60 mm

SCALE VALUE

1 mm

DIMENSIONS (LxWxH)

Main instrument:

200 x 250 x 570 mm

Electronic unit:

200 x 171 x 90 mm

WEIGHT

Main instrument: 33 kg

Electronic unit: 2 kg








Heating module: 3 kg

PUNCHING PRESSES SP 1000 II / SP 4000 II

RANGES OF APPLICATION

Manual cutting of ring shaped, bar shaped and other shapes of elastomer specimens.

CUTTING DIES

| SHAPE | STANDARDS |
|---|---------------------------------|
|  | ISO 37 / DIN 53504 / ASTM D 412 |
|  | ISO 37 / DIN 53504 / ASTM D 412 |
|  | ISO 34-1 |
|  | ISO 34-1 / ASTM D 624 |
|  | ISO 34-1 / ASTM D 624 |
|  | ASTM D 624 |
|  | ISO 34-2 / 816 |

And many more – Please send us your enquiry for specific standards

ACCESSORIES

- hard carton cutting pad
- cutting die with holder and ejector

CUTTING PRESSURE:

SP 4000 II: 5 KN

SP 1000 II: 5 KN

CUTTING DEPTH:

SP 4000 II: max. 24 mm

SP 1000 II: max. 24 mm

THROAT DEPTH:

SP 4000 II: max. 60 mm

SP 1000 II: max. 60 mm

SUPPORTING TABLE:

SP 4000 II: max. 120 x 330 mm

SP 1000 II: max. 175 x 270 mm

DIMENSIONS (LxVxH)

SP 4000 II: 300 x 300 x 450 mm

SP 1000 II: 270 x 270 x 600 mm

WEIGHT

SP 4000 II: 50 kg

SP 1000 II: 20 kg



Cutting die with holder and ejector



SP 1000 II



SP 4000 II

ABRASION TESTER

STANDARDS

DIN ISO 4649 / NF ISO 4649 / ASTM D 5963

RANGES OF APPLICATION

Determination of the resistance of elastomers against abrasion for rubber products such as tire, conveyor belt, tube, shoes, floor coatings and etc.

ACCESSORIES

- Additional 10 N contact pressure on specimen
- Abrading steel
- Ø 16.2 mm circular cutting device with Morse taper shaft MK2 and holder
- Dust cover for abrasion tester
- Standard reference elastomer for abrasion tester acc. to ISO 4649, ASTM D 5963 (DIN 53516), Dimensions: 181 x 181 x 8 mm, 365 g
- Unconditioned abrasion sheet of 474 x 402 mm, consisting of 5 sheets, including one roll of double sided tape
- Cleaning device with 10 sets of brushes and a mounting kit
- Vacuum cleaner with adapter for cleaning device
- Electronic scale

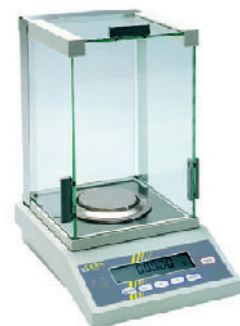
POWER SUPPLY:
100-240 V - 50 / 60 Hz - 100 VA
MEASURING RANGES:
ABRASION
ABRASION DISTANCE:
40 / 20 m
DIMENSIONS (LxWxH)
760 x 360 x 320 mm
WEIGHT
50,0 kg



Circular cutting device



Including loading device
Clamping device for specimen



Scale



Abrasion Tester

3106

RANGES OF APPLICATION

Hardness tester for the determination of the ball indentation hardness Modules selectable –

- HPU - 1 basic equipment, evaluation of ball indentation hardness following a table of standards, hardness test on asphalt acc. to DIN 1996-13; Determination of the compression and recovery acc. to ASTM F 36-99; loading level 49 N and pre-force 9.81 N
- HPU - 2 module ball indentation hardness acc. to DIN EN ISO 2039-1
- HPE - 3 module Rockwell hardness on metal acc. to DIN EN ISO 6508-2 / ASTM E 18 / ASTM D 785
- HPE - 4 module Rockwell hardness on carbon materials acc. to DIN 51917 / DIN EN IEC 413 / DIN 51917 / DIN EN IEC 413
- HPE - 5 module hardness on building plasters acc. to DIN EN 13279



3106

POWER SUPPLY:
Power supply input: 100 – 240 VAC;
50 / 60 HZ, output: 3.3 VDC
IP CODE:
IP 50
RESOLUTION:
0.001 mm
READING:
LC-Display, dot matrix,
format 2 x 16
DATA OUTPUT:
V24 RS 232 - 9600 baud,
1 start bit, 8 data bits, 1 stop bit
MEASURING TIME:
1 - 99 s
WEIGHT
70 kg

KAL-ROCK

RANGES OF APPLICATION

Calibration device for the penetration depth of Rockwell-hardness testing machines (patented) with DAkS / DKD-calibration certificate



kal-rock



POWER SUPPLY:
100 – 240 VAC; 50 / 60 Hz
IP CODE:
IP 30
RESOLUTION:
0.1 µm
MEASURING RANGES:
Measurement of penetration depth
DATA OUTPUT:
USB V 24 RS 232 - 9600 baud,
1 start bit, 8 data bits, 1 stop bit
FINE ADJUSTMENT OF LENGTH:
Measuring device: ± 0.4 mm
READING ACCURACY:
Measuring device: ± 0.2 µm
DIMENSIONS (LxWxH)
Electronic unit: 290 x 260 x 210 mm
Measuring device: Ø 90 mm,
Length 125 mm
WEIGHT
Electronic unit: 2.5 kg
Measuring device: 3.2 kg

GELOMAT II

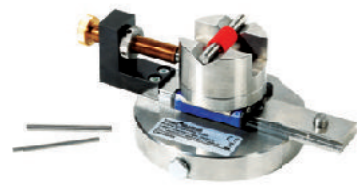
RANGES OF APPLICATION

Modular and digital hardness testing system for hardness determination on soft elastic materials e.g. gelatin, gelatin capsules, plasticine and etc.

ACCESSORIES

- Centrofix for precise centering of gelatin capsules
- Rotatable template for different dimensions of gelatin capsules
- Manufacturer calibration certificate for measuring device 0-2 N / 0-20 N
- Reference block for 0-20 N

POWER SUPPLY:
100 – 240 VAC ; 50 / 60 Hz
FUSE:
2 pieces of fuse 3.15 A (3.15 AT)
POWER CONSUMPTION:
max. 20 VA
IP CODE:
IP 30
READING:
LCD-graphic display (240x128 pixel) with brightness selectable LED illumination
RESOLUTION:
0.1
MEASURING METHODS:
0-20 N/0-2 N
DATA OUTPUT:
USB / RS 232 - 9600 baud, 1 start bit, 8 data bits, 1 stop bit
DIMENSIONS (LxWxH))
Test stand: 200 x 250 x 570 mm
Electronic unit: 200 x 171 x 90 mm
WEIGHT
Test stand: 9 kg
Electronic unit: 2kg



Centrofix



Rotation



Gelomat

CHECK DEVICE

FOR ANALOGUE AND DIGITAL DUROMETERS

RANGES OF APPLICATION

To control the spring characteristics of HP and HPE II in Shore A and D scales.

ACCESSOIRES

- Sliding and balance weights for Shore D
- DAkkS/DKD-calibration certificate for spring force
- Weight 7 kg



Check device

CONTROL RINGS

WITH DAKKS/DKD-CALIBRATION CERTIFICATE

RANGES OF APPLICATION

To control the measuring distance of HP and HPE II in Shore scales of 20, 40, 60, and 80



Control rings

STANDARD RUBBER BLOCKS

WITH DAKKS/DKD-CALIBRATION CERTIFICATE

RANGES OF APPLICATION

Standard rubber blocks provide reference measurements for instruments of Shore / IRHD / Gelomat / Pusey & Jones. The Bareiss standard rubber blocks are embedded in a metal base providing better stability.

Volume of delivery:
In a set of 1, 3 and 6 pcs including DAkkS/DKD-calibration certificate.



RB - IRHD



RB - Shore

V-TEST II BASIC

MEASURING METHOD

Vickers

STANDARDS

DIN EN ISO 6507

RANGES OF APPLICATION

For hardness determination on metals and ceramics.

BASIC CONFIGURATION

Manually positioned Z-axis on test stand
 Manually positioned X-axis table
 Magnetic supporting table Ø 100 mm
 Camera 1/2" in black and white, digital optics with zoom
 Micro objective 20 times magnification including illumination – other options of objectives are available

ACCESSORIES

- Table X-Y manual, 25 x 25 closed, up to 10 kg load
 Can be equipped with one analog and one digital micro meter or both digital micro meters
 - » analog micro meter – range 0-25 mm, reading 0.01
 - » digital micro meter - range 0-25 mm, resolution 0.001 for hardness profile
- Pick up device for specimen for round shaped specimens between Ø30 and Ø50 mm, extra dimensions on demand
- Centrally clamping vice – equipped with 1 set of chucks
- Evaluation software Hardsoft with dongle – hardness test under WIN XP / Vista / WIN 7
- Standard test blocks on demand
- DAkkS/DKD-calibration certificate for low force / Micro hardness – test load levels HV
- Indenter Vickers 136° incl. DAkkS/DKD-calibration certificate



HVWA 06 - PORTABLE

BASIC CONFIGURATION

Loading range HV 0.025 to HV 0.1
 Analogue hardness measuring microscope with motorized height adjustment Automatic load control
 Level of focus to meet the ideal distance of diamond sample
 Integrated bubble level for levelling adjustment
 Free movable feet for better stability on different degrees of curvature

DIMENSIONS (LxBxH)

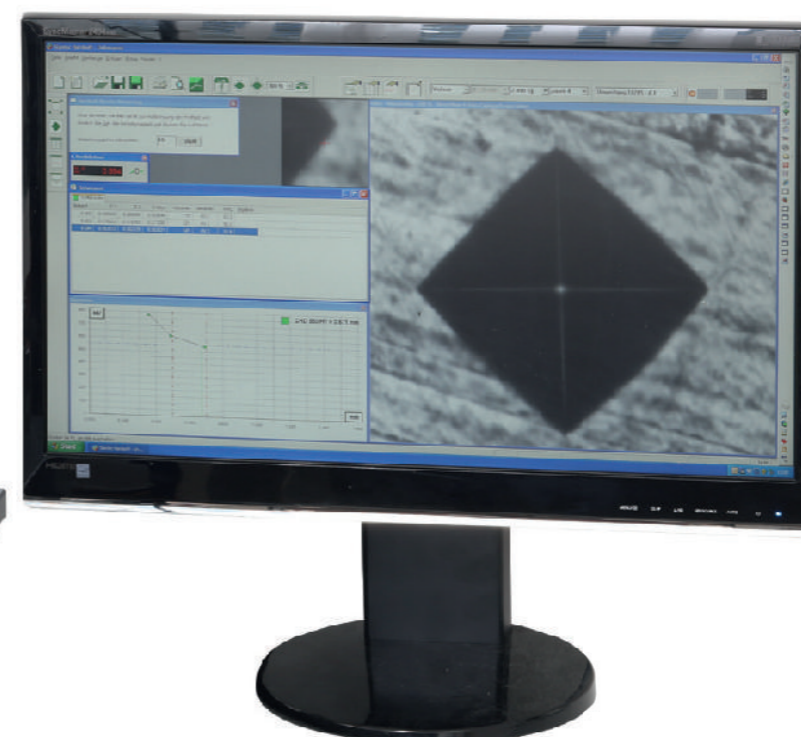
500 x 400 x 400 mm

WEIGHT

ca. 12 kg



Portable Vickers HVWA 06 for hardness determination on curved surfaces



V-Test II Basic

SOFTWARE HARDTEST

THE TEST- AND EVALUATION SOFTWARE HARDTEST V 2.1 FOR THE HARDNESS- / HYSTERESIS MEASUREMENT WITH BAREISS HARDNESS TESTERS

RANGES OF APPLICATION

Applicable for Bareiss-hardness testers with USB interface and serial interface.

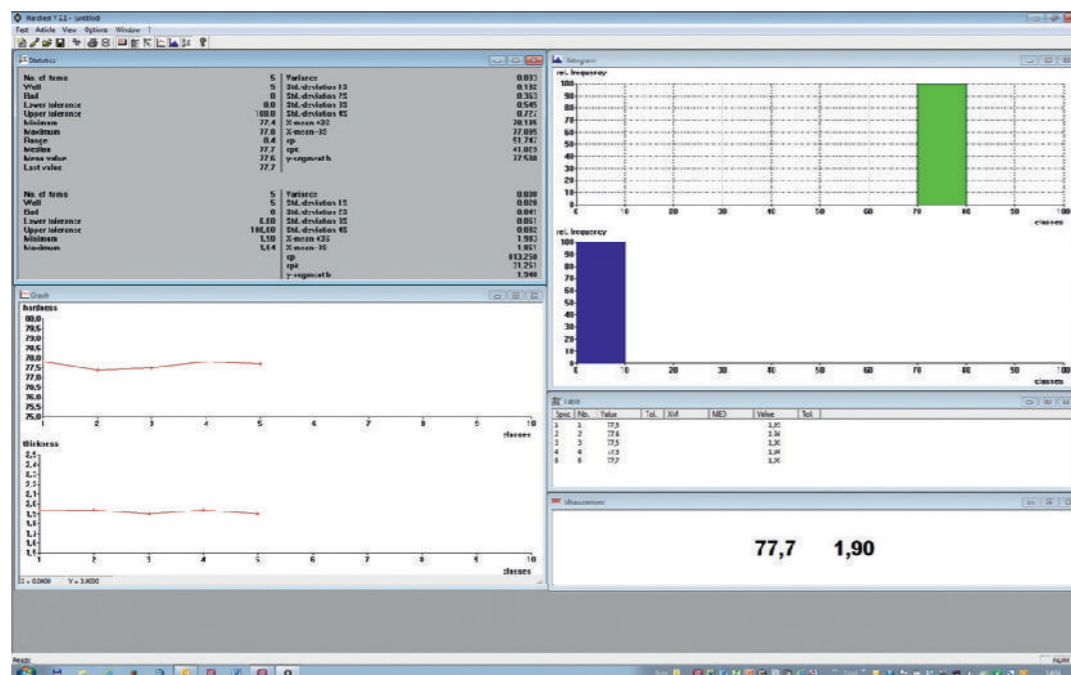
FUNCTIONS

The software contains the following functions for the documentation of the measured values:

- Reading of the actual hardness value.
- Reading of all hardness values of a series of measurements.
- Marking of the measured values which are out of the tolerance limits (<, >).
- Viewing of all the activated values at one glance.
- Calculation of the average- and median value.
- Display of a series of measurements in diagram and histogram.
- Display of the recovery characteristics of materials in a hysteresis curve.

FURTHER FUNCTIONS:

- 32-Bit Program, compatible with Windows 7 and on.
- Tool bar for quick access to the menu.
- Detailed help information.
- The languages are available in German, English and French. Other options of language can be inserted by request.
- Measuring can be interrupted and resumed later.
- Measuring values can be exported to external programs.



TECHNICAL DATA

| MEASURING METHOD | SPRING FORCE | CONTACT FORCE | INDENTER | PRESSER FOOT | MEASURING DISTANCE | MEASURING RANGE |
|--------------------------------------|--------------|---------------|------------|-----------------------|--------------------|-----------------|
| Shore A / DIN ISO 7619 / EN ISO 868 | 8050 mN | 1 kg | 35° | Ø 18 mm | 2,5 mm | 0 – 100 |
| S. AM/M / DIN ISO 7619 / ASTM D 2240 | 764 mN | 250 g | 30° | Ø 9 mm | 1,25 mm | 0 – 100 |
| Shore E / ASTM D 2240 | 8050 mN | 1 kg | Ø 5 mm | ≥ 500 mm ² | 2,5 mm | 0 – 100 |
| Shore A0 / DIN ISO 7619 | 8050 mN | 1 kg | Ø 5 mm | ≥ 500 mm ² | 2,5 mm | 0 – 100 |
| L / Lc | 8050 mN | 1 kg | Ø 5 mm | Ø 18 mm | 2,5 mm | 0 – 100 |
| Shore D / DIN ISO 7619 / EN ISO 868 | 44450 mN | 5 kg | 30° | Ø 18 mm | 2,5 mm | 0 – 100 |
| Shore B / ASTM D 2240 | 8050 mN | 1 kg | 30° | Ø 18 mm | 2,5 mm | 0 – 100 |
| Shore C / ASTM D 2240 | 44450 mN | 5 kg | 35° | Ø 18 mm | 2,5 mm | 0 – 100 |
| Shore D0 / ASTM D 2240 | 44450 mN | 5 kg | 3 / 32" | Ø 18 mm | 2,5 mm | 0 – 100 |
| Shore 0 / ASTM D 2240 | 8050 mN | 1 kg | 3 / 32" | Ø 18 mm | 2,5 mm | 0 – 100 |
| Shore 00 / ASTM D 2240 | 1111 mN | 400 g | 3 / 32" | ≥ 500 mm ² | 2,5 mm | 0 – 100 |
| Shore 000 / ASTM D 2240 | 1111 mN | 400 g | r = 6,35 | ≥ 500 mm ² | 2,5 mm | 0 – 100 |
| Shore 000 S / ASTM D 2240 | 1.932 mN | 400 g | r = 10,70 | ≥ 500 mm ² | 5,0 mm | 0 – 100 |
| M Shore A / Bareiss Norm | 108 mN | 235 mN | 30° | Ø 6 mm | 1 mm | 0 – 100 |
| M Shore D / Bareiss Norm | 9213 mN | – | 30° | – | 0,5 mm | 0 – 100 |
| Asker C / SRIS 0101 | 8385 mN | 1 kg | Ø 5,08 mm | Ø 5,4 mm | 2,5 mm | 0 – 100 |
| Asker F / Werksnorm | 4295 mN | 0,5 kg | Ø 25,2 mm | Ø 80 mm | 2,5 mm | 0 – 100 |
| Barcol / DIN EN 59 / ASTM D 2583 | 71,3 N | 10 kg | 26° | Ø 2 mm | 0,76 mm | 0 – 100 |
| MEASURING METHOD | SPRING FORCE | CONTACT FORCE | INDENTER | PRESSER FOOT | MEASURING DISTANCE | MEASURING RANGE |
| IRHD M / DIN ISO 48 | 153,3 mN | 235 mN | Ø 0,4 mm | Ø 3,35 mm | 0,3 mm | 30 - 100 |
| IRHD N / DIN ISO 48 | 5,7 N | 8,3 N | Ø 2,5 mm | Ø 20 mm | 1,8 mm | 30 - 100 |
| IRHD H / DIN ISO 48 | 5,7 N | 8,3 N | Ø 1,0 mm | Ø 20 mm | 0,44 mm | 85 - 100 |
| IRHD L / DIN ISO 48 | 5,7 N | 8,3 N | Ø 5,0 mm | Ø 22 mm | 2,1 mm | 9,9 - 34,9 |
| VLRH / DIN ISO 27588 | 100,0 mN | 235 mN | Ø 2,5 mm | Ø 6,0 mm | 1,0 mm | 0 - 100 |
| Pusey & Jones | 1000 g | – | Ø 3,175 mm | – | – | 0 - 300 |

HIGH-TECH MADE IN GERMANY

BAREISS PRODUCTS ARE EXPORTED WORLDWIDE

ARGENTINA
AUSTRALIA
AUSTRIA
BELGIUM
BRAZIL
CANADA
CHINA

CIS
COLUMBIA
CZECH REPUBLIC
DENMARK
EGYPT
FINLAND
FRANCE

GREAT BRITAIN
HUNGARY
INDIA
IRELAND
INDONESIA
IRAN
ISRAEL

ITALY
JAPAN
KOREA
MALAYSIA
NETHERLANDS
NORWAY
POLAND

PORTUGAL
ROMANIA
RUSSIA
SWEDEN
SWITZERLAND
SINGAPORE
SLOVAKIA

SPAIN
TAIWAN
THAILAND
SOUTH AFRICA
TUNISIA
TURKEY
USA



06/2014 techn. Änderungen vorbehalten



Heinrich Bareiss Prüfgerätebau GmbH
DAkS/DKD-Kalibrierlaboratorium

Breiteweg 1 | DE-89610 Oberdischingen
info@bareiss.de www.bareiss.de



i n s t r u m e n t s

Pol. Ind. Azitain - Parcela 3A | 20600 EIBAR
info@neurtek.es www.neurtek.com