

# digiChamber

EN



## Hardness testing solution for rubber performed in extreme temperatures

Performing hardness tests in a temperature simulated environment.



The Bareiss digiChamber is a perfect solution to analyse how rubber hardness changes. In collaboration with the renowned temperature solution provider „Weiss Technik“, the digiChamber uses temperature simulations with the best accuracy. Maximize your testing capability and capacity with digiChamber-R, using our computer-controlled, serial digiChamber to check the hardness of polymers, with a temperature range between -70°C and +180°C. The associated hardness tester digi test II is mounted externally, to avoid temperature-related measurement errors. Only the connected indenter is installed inside the chamber.

Conveniently equipped with an inspection window on the front door, the rotation table, with user-specific templates, positions the test specimens one after the other under the measuring device, for the automatic measurement. Alternatively, you can align molded parts individually and manually, using the side chamber opening. With the “digiCenter” software, you can control the temperature and humidity, measuring rhythm and the number of measuring points, as well as manage the determined values in a database. For the output of temperature-related hardness values, the program offers both graphics and value tables.

### TEST METHODS

Shore A
IRHD N

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## MAIN FEATURES

**A** Web based measuring and control system with I/O unit and **WEBSeason** software in a 7" touch panel.

Including monitor and software digiCenter to control chamber and hardness testing device.

**D** Hardness scales interchangeable between Shore A and IRHD N. Integrated IPC for complete control.

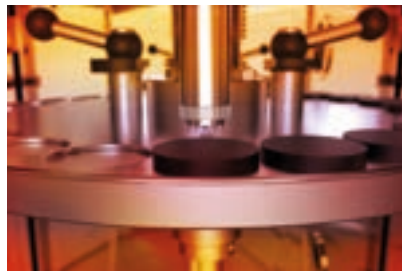
**C** Electronic console with digital I/O for controlling the hardness system.

**B** Large test volume of 200 liters with polished stainless steel walls for test load of up to 125 kg.

**E** Air-cooled refrigeration unit with continuously variable power adjustment by SIMPAC and chloride-free refrigeration cycle.



Rubber becomes hardened in an extreme cold environment. Simulate an environment as cold as -40° C with digiChamber.



Crank up the digichamber to +180°C (recommended at +150°C) to analyse how rubber changes its hardness in extreme heat.



The automatic rotating tray can carry up to 25 pcs of samples. Users can design a test sequence by selecting number of measurements per sample and the desired temperature.

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ASTM D1415    ASTM D2240    DIN EN ISO 868    DIN ISO 48-2    DIN ISO 48-4

digiCenter is a modularized software that is aimed to provide a common platform with integration of the control of the temperature chamber as well as the hardness testing device.

By combining these two worlds, digiCenter proved to be a very valuable tool to control and analyze temperature depending hardness testing.

Whether it is a standard test for one single measurement or a series of tests that requires a complex test sequence editing, BareissOne is designed to offer all levels of user's demands.



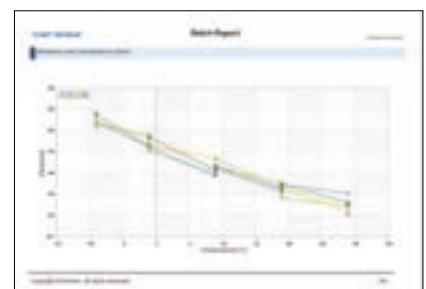
### User management

Allows the administrator to assign permissions to each individual user. Add, amend and delete roles quickly and implement them across platforms and applications.



### Graphic tutorials

With graphic tutorials integrated in digiCenter, users can quickly learn how to set up and use digiChamber with much less effort.



### Report and Analysis

Generate your custom test report with Microsoft Word-like user interfaces. Export the report in either CSV or Excel format.

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## SPECIFICATIONS

### Shore A hardness system

<b>Standard:</b>	DIN ISO 48-4, ASTM D 2240
<b>Spring force:</b>	8050 mN
<b>Force on presser foot:</b>	1 kg
<b>Presser foot size:</b>	∅ 18 mm
<b>Indenter:</b>	35°
<b>Penetration:</b>	2.5 mm

### IRHD N hardness system (Optional)

<b>Standard:</b>	DIN ISO 48-2, ASTM D 1415
<b>Initial load:</b>	0.3 N
<b>Primary load:</b>	5.7 N
<b>Force on presser foot:</b>	8.3 N
<b>Presser foot size:</b>	∅ 20 mm
<b>Indenter:</b>	∅ 2.5 mm
<b>Penetration:</b>	1.8 mm

### Temperature chamber

<b>Temperature range:</b>	-70°C to 180°C
<b>Recomm. max. temp.:</b>	150°C
<b>Temp. rate of change:</b>	±0.2 K to ±0.5 K
<b>Temp. homogeneity:</b>	±0.5 K to ±1.5 K
<b>Test volume:</b>	approx. 200 liters
<b>Heat compensation:</b>	800 W
<b>Noise level:</b>	56 dB (A)
<b>Refrigerant:</b>	Chloride-free R449A

### Electrical and interfaces

<b>Voltage:</b>	100-240 VAC, 50/60 Hz; 12 A
<b>Power:</b>	approx. 1.8 kW
<b>Protection Class:</b>	IP 54
<b>USB:</b>	3.0 (1 port)
<b>Ethernet:</b>	100/10 megabit

### Compressed air

<b>Pressure:</b>	4 – 12 bar
<b>Consumption:</b>	max. 6m <sup>3</sup> /h
<b>Coupling type:</b>	DN 7.2

### Specimen

<b>Type:</b>	Plate shape samples
<b>Standard:</b>	∅ 38 mm / 50 mm others on request



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ASTM  
D1415

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DIN  
EN ISO  
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DIN  
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48-4

## ACCESSORIES



### IRHD Normal measuring device

As an optional measuring device to the digiChamber.



### digiCenter software

A modular software that provides ease of use for all levels of user demands. It includes many key features that are essential for effective testing process and accurate results.



### Standard block

Choices of 1, 3 and 6 pcs set premium quality standard blocks with DAKKS certificates.



### BareissCare Service

The BareissCare service package provides extended calibration and maintenance services.



### DAKKS calibration certificate

Bareiss offers the most prestigious certificate for your quality assurance.

## REFERENCE

**Bareiss offers a comprehensive range of consumables and accessories for you to conduct your tests. All these products are proven to be premium quality.**



MADE IN GERMANY SINCE 1954.

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Deutsche  
Akkreditierungsstelle  
D-K-15206-01-00

The accreditation is valid for the scope listed in certificate D-K-15206-01-00 (mechanical measurands in the range of hardness).