



NEXTGEN MATERIAL TESTING

YOUR QUALITY TESTING CHOICE

digichamber – Temperature Controlled Hardness Testing

Standards:

DIN ISO 48, ASTM D 2240



GERMAN
MANUFACTURED



HIGHEST ACCURACY
AND REPEATABILITY



INDUSTRY
CERTIFIED



COMPLETE
CALIBRATION
SOLUTION



FREE PROOF OF
CONCEPT



CUSTOM TURNKEY
SOLUTION



digichamber – Temperature Controlled Hardness Testing System

Designed and developed by Bareiss, [digichamber](#) is the most advanced environmental chamber rubber-hardness tester in the market. This automatic testing device has been designed to analyze the hardness of rubber under extreme conditions using Shore hardness A or IRHD N testing methods. The device plays a critical role in the automotive and tire industries, where rubber parts need to withstand harsh temperature variations.

digichamber is a multifeatured temperature-controlled hardness tester that can carry out multiple tests simultaneously, providing accurate and reproducible results. The device features a 7" touch screen panel, user-friendly interface, and digiCenter software, making it more convenient to operate and function efficiently. Users can easily manage the testing sequence, criteria, and generate customized test reports.

digichamber Features and Benefits

1. Large display: DigiChamber has a 7" display and a touch screen panel that supports many languages.
2. User Friendly: DigiChamber - Advanced Environmental Chamber Rubber-Hardness Tester has a user-friendly interface that minimizes the training time.
3. Consists of an air-cooled refrigeration unit with SIMPAC's continuously variable power adjustment and a chloride-free refrigeration cycle.
4. A spacious 200-liter test volume with polished stainless-steel walls for a test load of up to 125 kgs.
5. Controlling the hardness system is simple with an electronic display and digital I/O.
6. Special Feature: The automatic tray can hold up to 25 samples, and the user can choose a test sequence by selecting several measurements on a sample as well as the appropriate temperature.
7. Temperature: Rubber hardens in extreme cold temperatures, and this may be simulated in an environment as cold as -40 °C with digiChamber. Rubber may be analyzed using our automatic digiChamber under very high heat conditions of up to +180 °C.

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8. DigiCenter includes a user-friendly GUI (Graphic User Interface) for all data logging and analysis, allowing users to effortlessly navigate through the software and quickly become familiar with it.

digiChamber Technical Data and Specifications

Shore A Hardness System	
Standards	DIN ISO 48-4, ASTM D 2240
Spring Force	8050 mN
Force on the presser foot	1kg
Presser foot size	Ø 18mm
Indenter	35"
Penetration	2.5mm

IRHD N hardness system (optional)	
Standards	DIN ISO 48-2, ASTM D 1415
Initial load	0.3 N
Primary load	5.7 N
Force on the presser foot	8.3 N
Presser foot size	Ø 20 mm
Indenter	Ø 2.5 mm
Penetration	1.8MM

Electrical and interfaces	
Voltage	100-240 VAC, 50/60 Hz; 12 A
Power	Approx 1.8 kW
Protection Class	IP 54
USB	3.0 (1 port)
Ethernet	100/10 megabit



Temperature Chamber	
Temperature range	-700 C to 1800 C
Recommended max temperature	1500 C
Temperature rate of change	±0.2 K to ±0.5 K
Temperature homogeneity	±0.5 K to ±1.5 K
Test volume	Approximate 200 litres
Heat compensation	800 W
Noise level	56 dB(A)
Refrigerant	Chloride-free R449A

Compressed air	
Pressure	4-12 bar
Consumption	max. 6m3/h
Coupling type	DN 7.2

Sample Geometry: O-rings; Sheet material Shaped; Parts and thin specimens	
Type	Plate shape samples
Standard	Ø 38 mm / 50 mm others on request

digiChamber Basic Equipment

Hardness scales interchangeable between Shore A and IRHD N, 7" touch screen, electronic console, a large testing chamber having a capacity up to 200 liters, air-cooled refrigeration unit. This state-of-the-art testing device consists of an air-cooled refrigeration unit with continuously variable power adjustment by SIMPAC and a chloride-free refrigeration cycle. The large test volume of 200 liters with polished stainless-steel walls can handle a test load of up to 125 kgs. The automatic tray can carry up to 25 pcs of samples and the user can select a test sequence by choosing multiple measurements on a sample along with the desired temperature. With digiChamber, you can simulate extreme cold temperatures as low as -40 0C and analyze rubber under extreme heat conditions of up to +180 0C temperature. The device comes with digiCenter software, a user-friendly GUI (Graphic User Interface) for data logging and analysis.



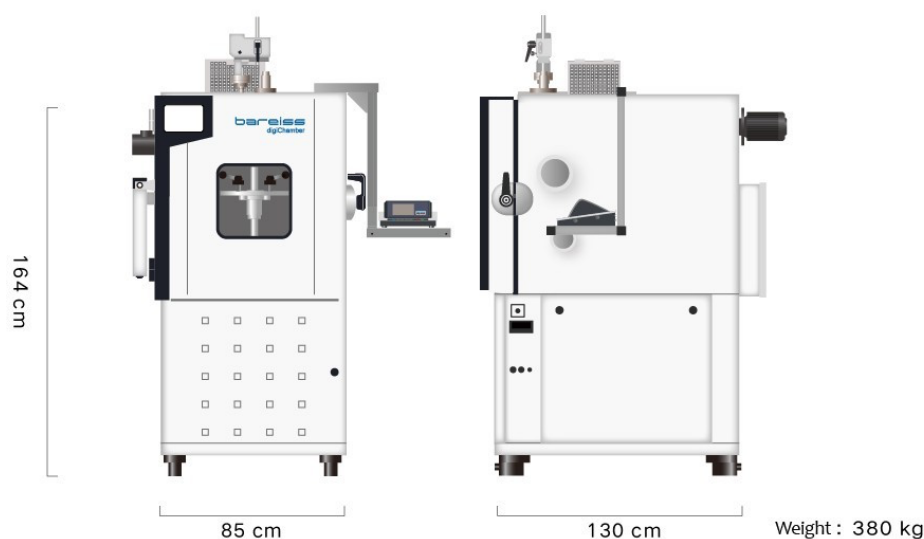
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All measurement data, together with the sample-specific information, can be fetched via the interface and processed further in downstream analysis systems. With its wide range of features, the HDA 120 is an ideal choice for those looking for accurate and reliable semi-automatic detection of hardness and density in their samples.

digichamber Weight & Dimensions



*** Request a [formal quotation](#) or send an e-mail to sales@nextgentest.com for the most up-to-date pricing and applicable discounts and incentives.**

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