

LiMiT

Rubber Hardness Tester

4000



Operating manual

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Rubber Hardness Tester LIMIT 4000

General information

Limit 4000 is designed to determine hardness of soft material as rubber, neoprene, silicon, vinyl etc.

A spring loaded probe are hold against the specimen and the Shore A value shows on the display.

The specimen surface should be flat and the instrument foot parallel to the specimen. The measurement area must be at least 12 mm diameter and distance to any edge at least 12 mm.

Specification

Range	0 – 100 Shore A
Min specimen thickness	6 mm
Accuracy	$\pm 1 \%$
Automatic off	After 1 minute
Operation temperature	0 – 50 °C
Humidity	0 – 80 % RH
Battery	4 pcs 1,5V type AAA
Weight	170 g

The instrumentet meet standard as DIN 53505, ISO 868, ASTM D 2240.

Operation

1. On or manuell OFF. Push the Θ -button.
2. Push the MAX-button. MAX shows on the display.

3. Hold the instrument vertically over the specimen. Apply the instrument foot rapidly but without shock. Apply just sufficient force to obtain firm contact between instrument foot and the specimen. Hold for 1 sec and max value shows on the display.
4. Next measurement. Push the ZERO-button and repeat step 3 above.

Max measuring mode can be cancelled by press MAX-button again. In such case the reading is an instant value.

Average value

Average value can given from 2 – 9 measurements.

1. Push the power Θ -button.
2. Push the MAX-button. MAX shows on the display.
3. Push and release the N/Ave-button. Continue push and release N/Ave-button to select numbers of measurement in the calculation. Wait 3 seconds to the display shows 0.
4. Perform first measurements as above.
5. Pushet ZERO-button after each measurement till all measurements are made.

Display shows AVE symbolen, average value and numbers of measurements.

Calibration

1. Hold the instrument vertical and make sure the probe are free. The displayen show 0. If not push the ZERO-button.

2. Put the testblock on a hard and smooth surface. Hold the instrument against the testblock with the probe in the hole. The display should show same value as marked on the testblock.
3. If not, hold the instrument against a flat surface e.g glass with enough force to make firm contact between glass and foot. Push the CAL-button. The value on the display should be between 99,5 and 101.
4. Repeat step 2 above.

Replace battery

When battery symbol shows on the display.

Remove the battery lid on backside and replace with 4 pcs 1,5 V batterys type AAA.