CONSTANT LOAD SHORE DIGITAL DUROMETER

MODEL : SHR - A - Di - Y2K®
MODEL : SHR - D - Di - Y2K®

Based on the Analog Shore Durometer, the Digital Hardness Tester (Durometer) is used for the determination of the indentation hardness of rubber, plastic, leather, wood and other similar materials.

The force is applied by a specially designed spring contained in a load cell screwed on to the body of the tester. The load cell can thus be easily replaced in case of wear & tear after a long use.

To eliminate errors resulting from various contact pressures applied by the operators, these testers have further been provided with very special springs contained in the outer body giving a specified contact pressure remains constant as per international specifications irrespective of the operator's hand pressure-resulting in very accurate readings.

These instruments are highly portable. The digital display gives readings upto 0.5 Shore unit and misreading of the scale are avoided.

THE SALIENT FEATURES ARE:

- Provided with “Hold” facility so that the reading can be taken even after the instrument is withdrawn from the specimen.
- Large clear digital display.
- Battery operated using one battery-type SR44-Voltage 1.5v
- Digimatic output from 0 to 100 units
- Manufactured in accordance with International Standards.
- Constant contact Pressure Load Cell (Patent pending internationally) to guarantee absolute constant contact pressure to avoid errors in reading due to different pressures applied by operators.
- It gives creep property of rubber.
- It is advisable to change the battery if the displayed figures are found to flicker indicating insufficient voltage.

APPARATUS:

The tester consists of the following main parts:

a) A main body housing a specially designed load cell and constant-load springs.
b) A specially designed digital gauge showing hardness numbers in 3 digits.

DIGITAL GAUGE:

It is a 3 digit large clear digital display window reading from 0 to 100 units
It is Provided with 3 buttons such as SET, HOLD & ZERO.
One button cell 1.5v battery.

LOAD CELL

It houses a specially designed load spring with calibration system which when fitted to the main body serves as a pressure foot through which the indentor tip protrudes outside.

CONSTANT CONTACT PRESSURE

Specially designed springs in the outer body give a constant specified pressure on to the presser foot as per DIN Standards eliminating errors resulting from various contact pressures in manual operation.

APPLICATION

These hardness testers have been designed to comply with DIN 53 505 and ASTM-D- 2240 and enable the hardness according to Shore to be rapidly determined.
The tests must be performed by mechanically unstressed specimens. The standard specimens should have a dia of 30 mm and a minimum thickness of 6 mm. Thinner materials can be placed layer upon layer until this minimum thickness is achieved. The surface to be tested must be flat and smooth.
Shore-A suitable for softer and medium hard varieties of rubber.

RANGE

Digital reading graduated from 0-100 Shore-A Nos.

TECHNICAL DATA

	Shore-A	**Shore-D**
Indentor	: Truncated cone	Pointed cone
Least count	: 0.5 no.	0.5 no.
Power source	: 1.5v button-cell battery	1.5v button-cell battery
Display	: 3 digit LCD	3 digit LCD
Dimensions	: 45ø X 60 ø X 165 mm	45ø X 60 ø X 165 mm
Operating buttons	: SET, ZERO & HOLD	SET, ZERO & HOLD
Net weight	: 450 gm	450 gm
Gross weight	: 1100 gm	1100 gm

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