

# LX-AM Shore Durometer

## User's Manual

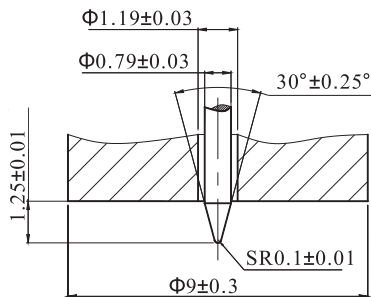
### Function:

LX-AM Shore Durometer is an instrument for testing the hardness of filmy rubber and plastic with normal range. It carries out National Standard GB/T531.1-2008 《Rubber vulcanized or thermoplastic-Determination of indentation hardness-Part 1: Durometer method(Share hardness)》, Which equals to ISO 7619-1:2004 《International Standard Rubber-Determination of Indentation hardness by means of pocket hardness meters》. Install this hardness tester on the test stand in supporting the load, and can be used in the laboratory to determine the standard hardness of rubber, plastic specimens. It has the following characteristics: simple structure, easy usage, light in weight and easy reading.

Note: This durometer can only be used on a matched test stand, could not be determined by hand. And designed for testing plastic specimens and products, the thin samples (thickness below 6mm). But testing and adjusting must comply with the regulation of GB/T2918-1998 《Plastic Sample Condition Adjustment and the Standard Environment of Testing》.

### Specification: ( $H_{AM}$ is the reading of AM Shore Durometer)

- Tip Stroke: 0~1.25mm
- Available Test Range: 20~90 $H_{AM}$
- Tip Pressure:  $F=324+4.4H_{AM}$ (mN)
- Dimension: 115×60×25mm
- Dial Indicator: 0~100 $H_{AM}$
- Accuracy:  $\pm 2H_{AM}$
- Weight: 0.15kg



### Operation Process

First install the Shore Durometer on the test stand correctly, then put the test sample on the glass table, press the operating handle. The sample will contact with the base under the effect of the fixed weights. Notice: the distance between the tip and the sample can not be less than 4.5mm. Press the base on the sample without any vibrancy and keep the base parallel with the sample's surface, marking the tip press sample vertically. The pressing force should be just enough. Except any provision, the reading can be done 3 second after the sample contact with the base. It must be pointed out if the reading is done in other interval time. Take 5 tests in different positions with at least 0.8mm between the samples and tip. Take the average.

## Operation Details:

### 1.Examination before testing

Before test, please check the needle is Zero. If the needle is not on Zero, please loose the screw on up-right, and turn around the dial make the needle on the Zero. Press the meter on glass board, the needle must on  $20 \pm 0.5H_{AM}$ (half scale).If it not, please press the tip slightly.If the needle still could not point to  $20 \pm 0.5H_{AM}$ (half scale), the durometer can not be used.If it used with test stand, pressing the operating handle, the table rose to die poise position, make the amount of pressure needle into the test hole, the needle must on  $100 \pm 1H_{AM}$ . If not, adjustment screw, still not,the durometer must be sent to factory to calibrate.

### 2.Rubber sample and the temperature(GB/T531.1-2008):

①Thickness of rubber sample should be not less than 1.5mm, test location away from the edge of at least 4.5mm.If the thickness is less than 1.5mm, please overlay samples but not more than 3 layers, and the thickness at least 1.5mm(the result of this method is not the same as the single specimen's).

②The required temperature should be  $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$  and the meter should be kept one hour under this temperature before operation.

③The surface of rubber and plastic sample should be smooth and even with no damage and dust.

④When determin the thin samples of soft rubber, due to the impact of testing table may obtain a higher hardness value .

3. The operating speed of the the handle is no more than 3.2mm / s.

4. Durometer should submit for censorship in a time. Generlly speaking, the period is not more than 1 year.

5. Put the meter into the box and store it in the dry environment to avoid damp.

6. Clean the lift axis and working table base regularly by smearing anti-rust oil.

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