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**ISH-SAM  
SHORE DUROMETER  
OPERATION MANUAL**

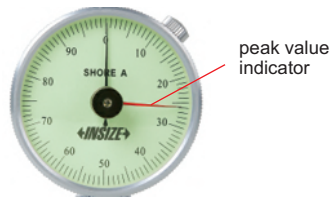


**Function**

ISH-SAM shore durometer is an instrument for measuring vulcanized rubber and plastic products. It carries out standard of ISO868, ISO7619, ASTM2240, this durometer can be installed in the same model test stand and used in the laboratory to test the standard hardness of rubber and plastic objects. It can also be held in hand to measure the surface hardness of rubber but plastic sample.

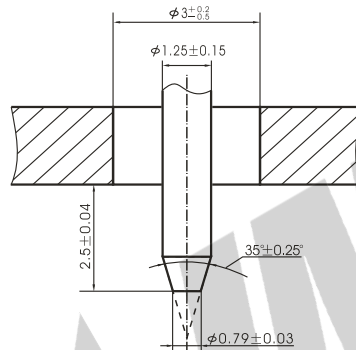
**Specification**

Tip stroke: 0~2.5mm  
 Dial Value: 0~100HA  
 Available test range: 10~90HA  
 Test error: 1HA  
 Dimension: 115x60x25 (mm)  
 Net weight: 160g



**Operation**

Put the sample on the stable platform, hold the shore durometer, the tips distance to samples edge at least 12mm, press pressure feet on the sample, without any vibrancy keep pressure feet parallel to make the pressure feet and sample contact closely, read the value by the maximum indicator. After read the value please back the maximum indicator by turning the knob CCW. For one test, please test hardness 5 times with the different position which distance is 6mm and then choose average value.



**Operation Details**

- 1 Before test, please check the needle is point to zero. If the needle is not in zero, please loose the screw on up-right, and turn around the dial make the needle to zero. Press the meter on glass board, the needle mast in  $100 \pm 1HA$ , if the needle not point to  $100 \pm 1HA$ , please Press the tip slightly for many times. If the needle can not point to  $100 \pm 1HA$ , the durometer can not use. If apply it on the durometer test stand, move the handle, make the working table up to lift the weight, make tip surface and feet surface touch to the working table closely, the needle should point to  $100 \pm 1HA$ . If not in  $100 \pm 1HA$ , adjust screw on the working table after adjusting the needle still not to  $100 \pm 1HA$ , it is better to send it to factory to calibrate.
- 2 Thickness of the rubber sample should not be less than 6mm, the area of sample must be more than 35x15mm. If the thickness is less than 6mm, please use multilayer sample congruence but not more than three and the sample must touch totally. Thickness of the plastic sample should not be less than 6mm, the area of sample must be more than 50x15mm.
- 3 The surface of the sample must be smooth, no defect.
- 4 After applying the durometer 35000 times, in every apply 10000 times, it is better to check spring pressure and index scale relation and shape size of tips accordance to the standard.
- 5 After test sample, please place the durometer into box, put it in the dry environment.
- 6 Please brush clean the up-down shaft and the base of working table, spread little against-rust oil, prevent rusting.
- 7 When apply the shore durometer, its available test range is 10HA-90HA, if it is above this range, suggest you to apply model D durometer.
- 8 Test temperature should in the range of  $23 \pm 5^\circ C$ , the relatively humidity is less than 85%, in the environment of no vibrancy and no erode.