

# Shore C Durometer (0-100HW) cod. ISH-SC – User's Manual

## Function:

ISH-SC shore durometer is an instrument for measuring foam, sponge, micropore rubber and other low hardness material. It carries out the international standard ISO 2439:2008 "Flexible cellular polymeric materials – Determination of hardness".

## Specification:

Tip stroke: 0-2.5 mm

Dial Value: 0-100 HW

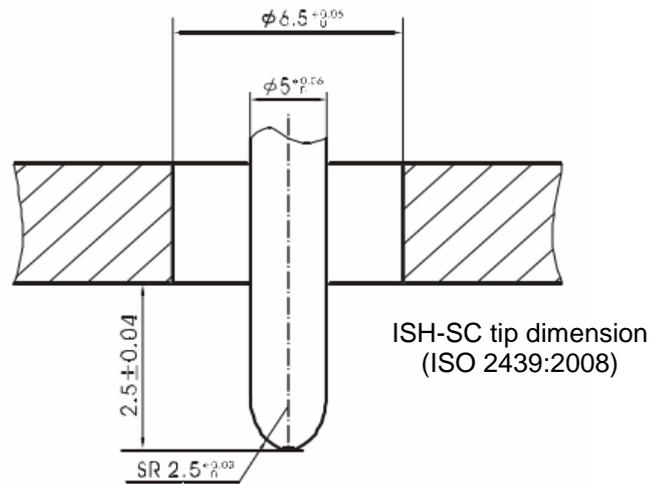
Available test range: 10-90 HW

Test error: 10→90HW, error is  $\pm 1$ HW

Tip dimension: SR2.5mm

Dimension: 115x60x25mm

Net weight: 0.5kg



## Operation process:

Put the sample on the stable platform, hold the shore durometer. The tip's distance to sample's edge is at least 15mm. Press pressure feet on the sample without any vibrancy and keep it parallel to make the pressure feet and sample contact closely. Unless other rule, must read the value 1 second after pressure feet and sample contact closely. If the value is other interval time must instruct. For one test, please test hardness 3 times with the different position which distance is 15mm 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 must in  $100 \pm 1$ HW, if the needle not point to  $100 \pm 1$ HW, please press the tip slightly for many times. If the needle cannot point to  $100 \pm 1$ HW, the durometer cannot be used. 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  $100 \pm 1$ HW. If not in  $100 \pm 1$ HW, adjust screw on the working table (see related instructions). If after adjusting the needle still not to  $100 \pm 1$ HW, it is better to send it to supplier to calibrate.

### (2) Rubber test.

a. Thickness of the rubber is  $10 \pm 1$ mm, the area of sample must be more than 15x60mm. If the thickness is less than 10mm, please use multilayer sample congruence, but the layer is not more than two. The rubber must touch totally (but the measured result is not the same as standard sample)

(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 regulation of ISO 7619:1986.

(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 10HW-90HW, if it is above this range, suggest you to apply other measurement method.