



ENGLISH

## Datasheet

# Durometer

RS Stock Number [332-0256](#)



### Description:

Shore Durometers provide a fast and convenient method of measuring the hardness of rubbers, plastics, leather and other soft materials.

Manufactured to comply with ASTM D2240 and DIN53505.

Strong portable design.

Complete with swing away indenter protection plate.

Supplied in fitted case complete with check block.

Specimen size should allow measurement to be taken at least 12mm from any edge

The specimen surface should be flat and parallel to allow the presser foot to contact its surface over an area which has a minimum radius of 6mm from the Durometer's indenter

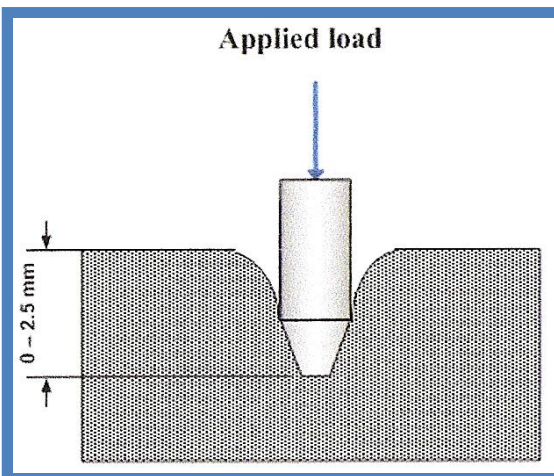
The specimen may be constructed with layered pieces to achieve the necessary thickness requirement. Measurements taken this way may not agree with those taken on solid pieces, due to the surface faces between layers not being in complete contact.



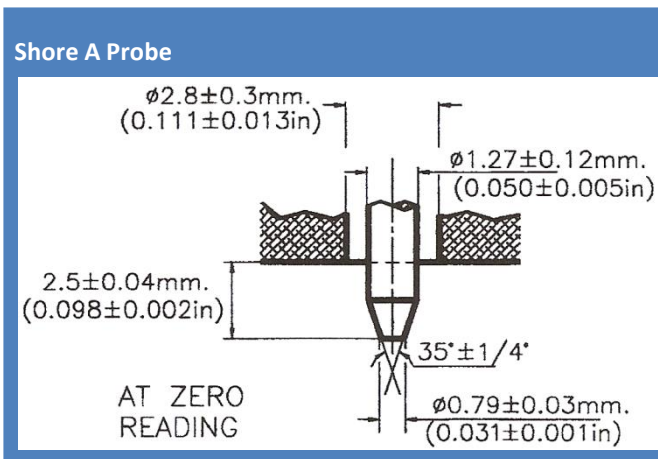
**Test Procedure:**

Rotate the red keeper hand anti clockwise until it rests against the black indicator hand when in the zero position.  
Test instrument for indicator movement by placing the indenter probe into the hole marked 25 in the test block.  
The keeper hand should remain in position within  $\pm 1$  division of the marked size.  
Repeat this test in the 50 and 75 positions. The keeper hand should always be within  $\pm 1$  division.  
Reset red keeper hand ready for use on the specimen.

Place the specimen on a hard horizontal surface.  
Hold the durometer in a vertical position with the indenter probe at least 12mm away from any edge.  
Apply the durometer's presser foot to the specimen with enough pressure to obtain good contact between the foot and the specimen.  
Read the hardness value one second after application of the pressure foot.  
For specimens exhibiting a marked flow propensity, the reading may take up to 15 seconds.



The principle used to determine Shore Hardness is based on measuring the resistance force of the penetration of an accurately ground conical probe into the test material under a known spring load. The amount of penetration is converted into a Shore Hardness value on a dial with 100 Shore Hardness graduations.



Shore A instruments are suitable for measuring the surface hardness of the following materials:

- Soft rubber
- Elastomers
- Natural rubber
- Soft PVC
- Leather
- Neoprene

Application range: 10 – 90 Shore A units  
Accuracy:  $\pm 1$  hardness unit