

Tentative Method of Test for

INDENTATION OF RUBBER BY MEANS OF THE DUROMETER¹



A.S.T.M. Designation: D 676 - 46 T

ISSUED, 1942; REVISED, 1944, 1946.²

This Tentative Method has been approved by the sponsoring committee and accepted by the Society in accordance with established procedures, for use pending adoption as standard. Suggestions for revisions should be addressed to the Society at 1916 Race St., Philadelphia 3, Pa.

Scope

1. This method of test covers the procedure for determining the indentation of rubber by means of the durometer. The method is considered a convenient means for obtaining an indication of the approximate hardness of rubber articles. It is not suitable for general use in purchasing specifications, except when the values specified are accompanied by adequate tolerances.

Apparatus

2. (a) *Indentor Point*.—The indentor point shall be made of hardened steel and shall conform to the shape and size shown in Fig. 1.

(b) *Calibrated Spring*.—The spring in the durometer shall be such that when it is calibrated in accordance with the procedure described in the paper on "The Standardization of Durometers," by Lewis Larrick³ the calibration curve

shall conform to a straight line, one end of which is at zero dial reading and 50-g. load and the other end at 100 dial reading and 850-g. load, as shown in Fig. 2. A variation of plus or minus 4 g. from the straight line shall be permitted at any or all points.

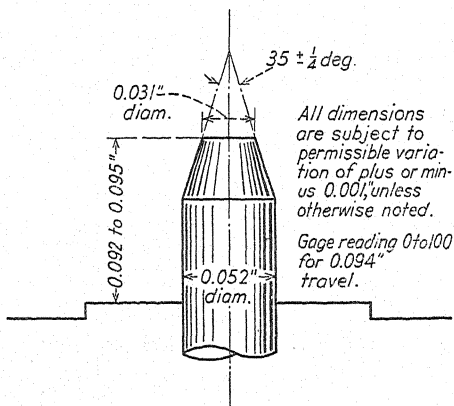


FIG. 1.—Indentor Point for Durometer.

Test Specimens

3. Test specimens shall be at least 0.25 in. in thickness. Thinner samples may be piled up to obtain this thickness,

¹ Under the standardization procedure of the Society, this method is under the jurisdiction of the A.S.T.M. Committee D-11 on Rubber and Rubber-Like Materials.

² Latest revision accepted by the Society at annual meeting, June, 1946.

³ *Proceedings*, Am. Soc. Testing Mats., Vol. 40, p. 1239 (1940).