

# JIS

**JAPANESE INDUSTRIAL STANDARD**

**Testing Methods for Durometer  
Hardness of Plastics**

**JIS K 7215**—1986

**Translated and Published**

**by**

**Japanese Standards Association**

**In the event of any doubt arising,  
the original Standard in Japanese is to be final authority.**

Testing Methods for Durometer Hardness of Plastics K 7215-1986  
(Reaffirmed: 1992)1. Scope

This Japanese Industrial Standard specifies the methods for measurement of durometer hardness A and hardness D of plastics. In that case, the range of durometer hardness shall be, as a rule, about 20 to 90 for both hardness A and hardness D. However, it shall not apply to plastic film, tape and foam plastics.

- Remarks
1. The hardness obtained by this method is a kind of indentation hardness and is obtained from the indentation depth when a test load is loaded. Therefore, the numerical value of durometer hardness has not always corresponding relation with the numerical value of Rockwell hardness specified in JIS K 7202 obtained from the residual indentation depth after removal of the test load, though it is the same indentation hardness.
  2. Though this standard applies to plastics, in the case of hardness capable of being measured, it may be used for the hardness test of elastomer.
  3. The durometer hardness test is suitably used for quality control.
  4. The units, numerical values and calculation formula given in { } in this standard are in accordance with conventional system of units and appended for informative reference.

2. Definition

The definitions of principal terms used in this standard shall be in accordance with JIS K 6900 and JIS Z 8103 and otherwise shall be as follows:

- (1) durometer hardness It is the value obtained from the indentation depth  $h$  generated when a sample is loaded with a test load changing according to the depth of indentation by using an indenter. Further, the class of indenter, test load and hardness calculation formula shall be as specified in Table 1.
- (2) durometer It is the test machine which measures durometer hardness.
- (3) type The durometer has an inherent name for each combination of the class of an indenter and a test load and its name is called a type. The contents of a type shall be as given in Table 1.