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Indian Standard

PLASTICS — METHODS OF TESTING

PART 5 MECHANICAL PROPERTIES

Section 11 Determination of Indentation Hardness by Means of Durometer (Shore Hardness)

(First Revision)

1 Scope

1.1 This International Standard specifies a method for the determination of the indentation hardness of plastics and ebonite by means of durometers of two types: typeA is used for softer materials and typeD for harder materials (see the Note to 8.2). The method permits measurement either of the initial indentation or of the indentation after a specified period of time, or both.

NOTEThe durometers and the methods specified in this International Standard are referred to as typeA Shore and typeD Shore durometers and durometer methods, respectively.

1.2 This method is an empirical method intended primarily for control purposes. No simple relationship exists between indentation hardness determined by this method and any fundamental property of the material tested. For specification purposes, it is recommended that ISO48, Rubber, vulcanized or thermoplastic— Determination of hardness (hardness between 10 IRHD and 100 IRHD), be used for the softer materials.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, this publication do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO291:1997, Plastics— Standard atmospheres for conditioning and testing