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Indian Standard

PLASTICS — METHODS OF TESTING

PART 2 SAMPLING AND PREPARATION OF TEST SPECIMENS

Section 5 Multipurpose Test Specimens

(First Revision)

1 Scope

This International Standard specifies requirements relating to multipurpose test specimens for plastic moulding materials intended for processing by injection or direct compression moulding.

Specimens of typesA and B are tensile test specimens from which, with simple machining, specimens for a variety of other tests can be taken (see annexA). Because they have such wide utility, these tensile specimens are referred to in this International Standard as multipurpose test specimens.

The principal advantage of a multipurpose test specimen is that it allows all the test methods mentioned in annexA to be carried out on the basis of comparable mouldings. Consequently, the properties measured are coherent as all are measured with specimens in the same state. In other words, it can be expected that test results for a given set of specimens will not vary appreciably due to unintentionally different moulding conditions. On the other hand, if desired, the influence of moulding conditions and/or different states of the specimens can be assessed without difficulty for all of the properties measured.

For quality-control purposes, the multipurpose test specimen may serve as a convenient source of further specimens not readily available. Furthermore, the fact that only one mould is required may be advantageous.

The use of multipurpose test specimens shall be agreed upon by the interested parties, because there may be significant differences between properties of the multipurpose test specimens and those specified in the relevant test methods.

The main modification with respect to the previous edition of this International Standard lies in narrowing the tolerances on the radius of the shoulder of specimen typesA and B. Taking into account the fact that many moulds based on the previous edition are still in use, the changes are introduced as recommendations only. It is intended to change from recommended to mandatory use at the next revision. Thereby a time span of about 10years is provided, allowing a gradual transition in the course of regular mould replacement. See also annexB.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents 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.

ISO293 :1986, Plastics— Compression moulding test specimens of thermoplastic materials

ISO294-1:1996, Plastics— Injection moulding of test specimens of thermoplastic materials— Part1: General principles, and moulding of multipurpose and bar test specimens

ISO295 :—[1)], Plastics— Compression moulding of test specimens of thermosetting materials

ISO2818:1994, Plastics— Preparation of test specimens by machining

1) To be published. (Revision of ISO295:1991)

ISO10724-1:1998, Plastics— Injection moulding of test specimens of thermosetting powder moulding compounds (PMCs)— Part1: General principles and moulding of multipurpose test specimens