

**BUREAU OF INDIAN STANDARDS**

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*Draft Indian Standard*

**PLASTICS — METHODS OF TESTING**

**PART 5 MECHANICAL PROPERTIES**

**SECTION XX DETERMINATION OF PUNCTURE IMPACT BEHAVIOUR OF RIGID PLASTICS**

**SUBSECTION 1 NON-INSTRUMENTED IMPACT TESTING**

(ICS 83.080.01)

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Methods of Sampling and Test for  
Plastics Sectional Committee, PCD 27

Last date for receipt of  
comment is **20 May 2024**

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**NATIONAL FOREWORD**

(Formal clauses will be added later)

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standard for which Indian Standard also exist. The corresponding Indian Standard, which is to be substituted in their respective places, is listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 291:1997, Plastics — Standard atmospheres for conditioning and testing.	IS 196 : 1966 Atmospheric conditions for testing (Revised)	Not Equivalent
ISO 293:1986, Plastics — Compression moulding test specimens of thermoplastic materials.	PCD/27/24270 Plastics — Methods of Testing: Part 2 Sampling and Preparation of Test Specimens Section 1 Plastics — Compression moulding of test specimens of thermoplastic materials ( <i>revision of IS 13360 (Part 2/Sec 1)</i> )	Identical with ISO 293 : 2023

ISO 294-3:1996, Plastics — Injection moulding of test specimens of thermoplastic materials — Part 3: Small plates.	IS 13360 (Part 2/Sec 7) : 2021/ ISO 294-3 : 2020 Plastics — Methods of Testing: Part 2 Sampling and Preparation of Test Specimens, Section 7 Injection moulding of test specimens of thermoplastic materials — Small plates ( <i>third revision</i> )	Identical with ISO 294-3 : 2020
ISO 295:1991, Plastics — Compression moulding of test specimens of thermosetting materials.	IS 13360 (Part 2/Sec 2) : 2013 / ISO 295 : 2004 Plastics — Methods of testing: Part 2 Sampling and preparation of test specimens, Section 2 Compression Moulding of Test Specimens of Thermosetting Materials ( <i>first revision</i> )	Identical with ISO 295 : 2004
ISO 2818:1994, Plastics — Preparation of test specimens by machining.	IS 13360 (Part 2/Sec 4) : 2021 / ISO 2818 : 2018 Plastics — Methods of testing: Part 2 Sampling and preparation of test specimens, Section 4 Preparation of test specimens by machining ( <i>second revision</i> )	Identical with ISO 2818 : 2018
ISO 7765-1:1988, Plastics film and sheeting — Determination of impact resistance by the free-falling dart method — Part 1: Staircase methods	IS 13360 (Part 5/Sec 6) : 1999 / ISO 7765-1 : 1988 Plastics — Methods of testing: Part 5 Mechanical properties, Section 6 Determination of Impact resistance by the free-falling dart method — Staircase methods	Identical
ISO 7765-2:1994, Plastics film and sheeting — Determination of impact resistance by the free-falling dart method — Part 2: Instrumented puncture test.	IS 13360 (Part 5/Sec 24): 1999 / ISO 7765-2 : 1994 Plastics — Methods of testing: Part 5 Mechanical properties, Section 24 Determination of impact resistance by the free - falling dart method — Instrumented puncture test	Identical

The technical committee has reviewed the provisions of the following International Standards referred in this adopted standard and has decided that it is acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 1268 : 1974,	Plastics — Preparation of glass fibre reinforced, resin bonded, low-pressure laminated plates or panels for test purposes.

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’.

**NOTE** — The technical content of this document has not been enclosed as this is identical with the corresponding ISO Standard. For details, please refer to ISO 6603-1 : 2000 or kindly contact:

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