**Doc: PCD 27 (23186) F**

***भारतीय मानक***

***Indian Standard***

**IS 13360 (Part 5/Sec 5/  
Subsec 2) : 2024**

**ISO 179-2 : 2020**

**प्लास्टिक — परीक्षण पद्धतियाँ**

**भाग 5 यांत्रिक गुणधर्म**

**अनुभाग 5 चार्पी प्रभाव गुणधर्म का निर्धारण**

**उपभाग 2 यंत्रीकृत प्रभाव परीक्षण**

(दूसरा पुनरीक्षण)

**Plastics — Methods of Testing**

**Part 5 Mechanical Properties**

**Section 5 Determination of Charpy Impact Properties**

**Subsec 2 Instrumented Impact Test**

*(Second Revision)*

ICS 83.080.01

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**November 2024 Price Group X**

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

NATIONAL FOREWORD

This Indian Standard (Part 5/Sec 5/Subsec 2) (Second Revision) which is identical with ISO 179-2 : 2020   
‘Plastics — Determination of Charpy impact properties Part 2: Instrumented impact test’ issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendations of the Methods of Sampling and Test for Plastics Sectional Committee and approval of the Petroleum, Coals and Related Products Division Council.

This standard was originally published in 1996 and subsequently revised in 2017. This revision has been brought out to align the standard with the latest version of ISO 179-2 : 2020.

As the ISO is available in two parts, the Committee decided to bifurcate the standard [IS 13360 (Part 5/Sec 5)] into two subsections as:

Subsec 1: Non-instrumented impact test

Subsec 2: Instrumented impact test

The major changes in this revision are as follows:

* references to [ISO 13802 : 2015](https://www.iso.org/obp/ui/en/#iso:std:iso:13802:ed-2:en) have been updated;
* force calibration requirements have been clarified; and
* a new subclause for the determination of test speed when using falling mass instruments has been added (*see* [**5.1.6**](https://www.iso.org/obp/ui/en/#iso:std:iso:179:-2:ed-2:v1:en:sec:5.1.6)).

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 standards, references appear to certain International Standard for which Indian Standards also exist. The corresponding Indian Standards, which is to be substituted in their respective places, is listed below along with their degree of equivalence for the editions indicated:

|  |  |  |
| --- | --- | --- |
| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
| ISO 179-1 : 2010, Plastics — Determination of Charpy impact properties — Part 1: Non-instrumented impact test | PCD 27 (23184) Plastics — Methods of testing: Part 5 Mechanical properties, Section 5 Determination of charpy impact properties, Subsec 2 Instrumented impact test [Revision of IS 13360 (Part 5/Sec 5)] | Identical |

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

|  |  |
| --- | --- |
| *International Standard* | *Title* |
| ISO 291 | Plastics — Standard atmospheres for conditioning and testing |
| ISO 2602 | Statistical interpretation of test results — Estimation of the mean — Confidence interval |
| ISO 13802 : 2015 | Plastics — Verification of pendulum impact-testing machines — Charpy, Izod and tensile impact-testing |
| ISO 16012 | Plastics — Determination of linear dimensions of test specimens |

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*)’.