**Doc: PCD 12 (25652) F**

***भारतीय मानक***

***Indian Standard***

**IS 2046 (Part 7) : 2024**

**ISO 4586-7 : 2018**

**सजावटी थर्मोसेटिंग सिंथेटिक रेज़िनबॉन्डेड लेमिनेटेड चादरें — विशिष्टि**

**भाग 7 डिज़ाइन लैमिनेट्स के लिए वर्गीकरण और विशिष्टियाँ**

(*तीसरा पुनरीक्षण*)

**Decorative Thermosetting Synthetic Resin Bonded Laminated Sheets — Specification**

**Part 7 Classification and Specifications for Design Laminates**

(*Third Revision*)

ICS 83.140.20

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भारतीय मानक ब्यूरो

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**December 2024 Price Group X**

Plastics Sectional Committee, PCD 12

NATIONAL FOREWORD

This Indian Standard (Part 7) (Third Revision) which is identical with ISO 4586-7 : 2018 ‘High-pressure decorative laminates (HPL, HPDL) — Sheets based on thermosetting resins (usually called laminates) : Part 7 Classification and specifications for design laminates’ issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendations of the Plastics Sectional Committee and approval of the Petroleum, Coal and Related Products Division Council.

This standard was originally published in 1962 and subsequently revised in 1969 and 1995. The 1962 version was published to meet the general demand for a standard to cover the use of synthetic resin bonded sheets as a decorative material having a surface which is characterized by its hardness and the materials covered were suitable for use as wall panels or as veneer for wood or other surfaces.

The first revision of this standard was based on BS 3794 : 1964 ‘Specification for decorative laminated plastics sheets’ issued by the British Standards Institution. The second revision was necessitated to harmonize the standard with EN 438-1 : 1991 and EN 438-2 : 1992 issued by the European Committee for Standardization (CEN).

This revision (*third*) has been brought out to align the Indian Standard with the ISO 4586 (all parts) High-pressure decorative laminates (HPL, HPDL) –– Sheets based on thermosetting resins (usually called laminates). Since the ISO standard is published in 8 parts, the standard (IS 2046) has been also bifurcated in 8 parts.

Other parts in this series are:

|  |  |
| --- | --- |
| Part 1 | Introduction and general information |
| Part 2 | Determination of properties |
| Part 3 | Classification and specifications for laminates less than 2 mm thick and intended for bonding to supporting substrates |
| Part 4 | Classification and specifications for compact laminates of thickness 2 mm and greater |
| Part 5 | Classification and specifications for flooring grade laminates less than 2 mm thick intended for bonding to supporting substrates |
| Part 6  | Classification and specifications for exterior-grade compact laminates of thickness 2 mm and greater |
| Part 8 | Classification and specifications for alternative core laminates |

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 Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

|  |  |  |
| --- | --- | --- |
| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
| ISO 178 Plastics — Determination of flexural properties | IS 13360 (Part 5/Sec 7) : 2022/ISO 178 : 2019 Plastics –– Method of testing: Part 5 Mechanical properties Section 7 Determination of flexural properties (*second revision*) | Identical |
| ISO 1183-1 Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pyknometer method and titration method | IS 13360 (Part 3/Sec 10) : 2021/ISO 1183-1 : 2019 Plastics — Methods of testing: Part 3 Physical and dimensional properties Section 10 Determination of density of non-cellular plastics — Immersion method, liquid pyknometer method and titration method (*first revision*) | Identical |
| ISO 4586-2 : 2018 High-pressure decorative laminates (HPL, HPDL) — Sheets based on thermosetting resins (usually called laminates) — Part 2: Determination of properties | PCD 12 (25647) Decorative thermosetting synthetic resin bonded laminated sheets –– Specification: Part 2 Determination of properties (*under printing*) | Identical |

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

|  |  |
| --- | --- |
| *International Standard* | *Title* |
| [ISO 11664-2](https://www.iso.org/obp/ui/en/#iso:std:iso:11664:-2:en) | Colorimetry — Part 2: CIE standard illuminants |
| EN 12722 | Furniture — Assessment of surface resistance to dry heat |

The standard makes a reference to the packing and marking of the product, details of which are given in National Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

**NATIONAL ANNEX A**

(*National Foreword*)

**A-1 PACKING AND MARKING**

**A-1.1 Packing**

The material shall be supplied in packages as agreed to between the purchaser and the supplier.

**A-1.2 Marking**

**A-1.2.1** The consignment shall be marked suitably with the following information:

a) Manufacturer details and trade mark, if any;

b) Type and class of the material;

c) Month and year of manufacture; and

d) Batch number and code number.

**A-1.2.2** *BIS Certification Marking*

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the rules and regulations framed thereunder, and the product(s) may be marked with the Standard Mark.