भारतीय मानक Indian Standard IS 16499 (Part 1) : 2017 IEC 60763-1 : 2010

विद्युतीय प्रयोजनार्थ लेमिनेटिड प्रेसबोर्ड

भाग 1 परिभाषायें, वर्गीकरण तथा सामान्य अपेक्षाएं

Laminated Pressboard for Electrical Purposes

Part 1 Definitions, Classification and General Requirements

ICS 29.035.10

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मानकः पथप्रदर्शकः

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Price Group 2

Solid Electrical Insulating Materials and Insulating Systems Sectional Committee, ETD 02

NATIONAL FOREWORD

This Indian Standard (Part 1) which is identical with IEC 60763-1 : 2010 'Laminated pressboard for electrical purposes – Part 1: Definitions, classification and general requirements' issued by the International Electrotechnical Commission (IEC) was adopted by the Bureau of Indian Standards on the recommendation of the Solid Electrical Insulating Materials and Insulating Systems Sectional Committee and approval of the Electrotechnical Division Council.

The text of IEC Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain terminology and 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 appear to the following International Standard for which Indian Standard also exists. The corresponding Indian Standard which is to be substituted in its place is listed below along with its degree of equivalence for the editions indicated:

International Standard	Corresponding Indian Standard	Degree of Equivalence
pressboard and presspaper for electrical purposes — Part 1:	IS 16498 (Part 1): 2017 Specification for pressboard and presspaper for electrical purposes: Part 1 Definitions and general requirements (<i>Under preperation</i>)	Identical

Only the English language text of the IEC Standard has been retained while adopting it as an Indian Standard and as such the page numbers given here are not same as in IEC Standard.

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, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding of numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

LAMINATED PRESSBOARD FOR ELECTRICAL PURPOSES

PART 1 DEFINITIONS, CLASSIFICATION AND GENERAL REQUIREMENTS

1 Scope

This part of IEC 60763 contains the definitions required for the understanding of all three parts of IEC 60763, the classification of material into types, and the general requirements applicable to all material covered by the standard.

Materials which conform to this specification meet established levels of performance. However, the selection of a material by a user for a specific application should be based on the actual requirements necessary for adequate performance in that application and not based on this specification alone.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60641-1:2007, Pressboard and presspaper for electrical purposes – Part 1: Definitions and general requirements

3 Terms and definitions

For the purposes of this document the following definitions apply:

3.1

pressboard

board normally made on an intermittent board machine from pulp made entirely from vegetable origin of high chemical purity. It is characterized by its relatively high density, even thickness, surface smoothness, high mechanical strength, flexibility, ageing resistance and electrical insulating properties. The surface may be smooth or textured

3.2

laminated pressboard

board built up from sheets of pressboard bonded with an adhesive

4 Classification

Based on compositions and properties, this standard covers the types of laminated pressboard shown in Table 1. The designation of types is the same as that given in IEC 60641-1; in addition, "L" is shown for "laminated" (for example LB0.1). To the description of the types some examples of known applications are added without implying any restriction on other possible applications.

Туре		Subdivisions		Example of application
LB0	Pressboard of particularly high chemical purity	LB0.1 LB0.2 LB0.3	100 % sulphate wood pulp 100 % cotton Mixture of sulphate wood pulp and cotton	Electrical equipment where particularly high chemical purity is required
LB2	Pressboard characterized by high chemical purity	LB2.1 LB2.2 LB2.3 LB2.4	100 % sulphate wood pulp 100 % cotton Mixture of sulphate wood pulp and cotton Mixture of cotton and jute hemp	Transformers
LB3	Pre-compressed pressboard, a very hard and rigid board characterized by high chemical purity and mechanical strength. Its surface bears a cloth mark	LB3.1 LB3.2 LB3.3 LB3.4	100 % sulphate wood pulp 100 % cotton Mixture of sulphate wood pulp and cotton Mixture of cotton and jute hemp	Transformers
LB4	Pressboard characterized by high chemical purity and high oil absorption and capable of being shaped	LB4.1 LB4.2 LB4.3 LB4.4	100 % sulphate wood pulp 100 % cotton Mixture of sulphate wood pulp and cotton Mixture of cotton and jute hemp	Transformers and oil-immersed equipment
LB5	Mouldable press board of high chemical purity and high oil absorption and capable of being shaped	LB5.1 LB5.2 LB5.3 LP5.4	100 % sulphate wood pulp 100 % cotton Mixture of sulphate wood pulp and cotton Mixture of cotton and jute hemp	Transformers and oil-immersed equipment
LB6	Pressboard of low porosity for dry type application	LB6.1 LB6.2 LB6.3 LB6.4	100 % sulphate wood pulp 100 % cotton Mixture of sulphate wood pulp and cotton Mixture of cotton and jute hemp	Motors and general electrical equipment

Table 1 – Classification

5 General requirements

5.1 Composition

The individual sheets from which the laminated board is built up shall conform to all the requirements specified in IEC 60641-1 for the corresponding type of pressboard, except that they need not comply with the requirements for thickness. The laminated board shall be made by laying such sheets unidirectionally and bonding them with a suitable adhesive.

5.2 Machinability

The board shall be capable of being machined with tools appropriate to the material as recommended by the manufacturer.

6 Dimensions

The preferred nominal thickness (in millimetres) of the laminated pressboard shall be one of the following:

10 - 12 - 15 - 20 - 25 - 30 - 40 - 50

Other thicknesses are possible. The tolerances on thickness are to be found in Part 3 of this series.

7 Conditions of supply

The laminated pressboard shall be placed in a packing which ensures adequate protection during transport, handling and storage.

A consignment of laminated pressboard shall be legibly and indelibly marked with the following information:

- a) manufacturer's name or trade mark, if any;
- b) type of laminated pressboard as given in Table 1;
- c) nominal thickness;
- d) sheet size;
- e) weight (net/gross).

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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc No.: ETD 02 (6644).

Amendments Issued Since Publication

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