

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Laminated pressboard for electrical purposes –
Part 1: Definitions, classification and general requirements

Cartons comprimés et contrecollés à usages électriques –
Partie 1: Définitions, classification et exigences générales

STANDARD PREVIEW
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LAMINATED PRESSBOARD FOR ELECTRICAL PURPOSES –

Part 1: Definitions, classification and general requirements

FOREWORD

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International Standard IEC 60763-1 has been prepared by IEC technical committee 15: Solid electrical insulating materials.

This second edition cancels and replaces the first edition published in 1983. This edition constitutes a technical revision.

The main changes with respect to the previous edition are as follows:

- the specification was brought in line with the second edition of IEC 60641-1(2007).

The text of this standard is based on the following documents:

CDV	Report on voting
15/536/CDV	15/566/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

A list of all the parts in the IEC 60763 series can be found on the IEC website.

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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*

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3 Terms and definitions

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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.

Table 1 – Classification

Type		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 LB5.4	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

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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