

BS EN 60763-1:2011



BSI Standards Publication

# Laminated pressboard for electrical purposes

Part 1: Definitions, classification and  
general requirements

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**National foreword**

This British Standard is the UK implementation of EN 60763-1:2011. It is identical to IEC 60763-1:2010. It supersedes BS EN 60763-1:1996 which will be withdrawn on 2 January 2014.

The UK participation in its preparation was entrusted by Technical Committee GEL/15, Solid electrical insulating materials, to Subcommittee GEL/15/9, Cellulosic materials.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Amendments issued since publication**

Amd. No.	Date	Text affected
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English version

**Laminated pressboard for electrical purposes -  
Part 1: Definitions, classification and general requirements  
(IEC 60763-1:2010)**

Cartons comprimés et contrecollés à usages électriques -  
Partie 1: Définitions, classification et exigences générales  
(CEI 60763-1:2010)

Blockspan für elektrotechnische Anwendungen -  
Teil 1: Begriffe, Einteilung und allgemeine Anforderungen  
(IEC 60763-1:2010)

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**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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## Foreword

The text of document 15/536/CDV, future edition 2 of IEC 60763-1, prepared by IEC TC 15, Solid electrical insulating materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60763-1 on 2011-01-02.

This European Standard supersedes EN 60763-1:1996.

The main changes with respect to EN 60763-1:1996 are as follows:

- the specification was brought in line with EN 60641-1:2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2011-10-02
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2014-01-02

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 60763-1:2010 was approved by CENELEC as a European Standard without any modification.

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## **Annex ZA** (normative)

### **Normative references to international publications with their corresponding European publications**

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60641-1	2007	Pressboard and presspaper for electrical purposes - Part 1: Definitions and general requirements	EN 60641-1	2008

# 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.

**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 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

## 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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