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Wood-based panels — Dry-process fibreboard

Panneaux à base de bois — Panneaux de fibres obtenus par procédé à sec

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Contents

Page

Foreword ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **2**

4 Symbols and abbreviated terms **2**

5 Classification, designation and coding **3**
5.1 General 3
5.1.1 Classification matrices 3
5.1.2 Uses 3
5.1.3 Additional classifications 3
5.1.4 Structural grades 4
5.2 Ultra-low-density fibreboard (UDF) 4
5.3 Low-density fibreboard (LDF) 4
5.4 Medium density fibreboard (MDF) 4
5.5 High-density fibreboard (HDF) 5

6 Tests related to each grade **5**
6.1 Mandatory tests 5
6.2 Optional tests 6

7 Thickness ranges **8**

8 Expression of specification limits and general requirements **8**
8.1 Expression of specification limits 8
8.2 Lower specification limits 8
8.3 Upper specification limits 9
8.4 Moisture resistance requirement options 9
8.5 Density variation, dimension and moisture content requirements 9
8.6 Formaldehyde requirements 10
8.7 Load bearing fibreboard 10

9 Specific property requirements for ultra-low-density fibreboard (UDF-FN REG) **10**

10 Specific property requirements for low-density fibreboard **11**
10.1 General 11
10.2 Requirements for furniture grade low-density fibreboard for use in dry conditions (LDF-FN REG) 11
10.3 Requirements for building grade low-density fibreboard for use in dry conditions (LDF-BL REG) 11
10.4 Requirements for general purpose low-density fibreboard for use in temperate humid conditions (LDF-GP MR1) 12
10.5 Requirements for furniture grade low-density fibreboard for use in temperate humid conditions (LDF-FN MR1) 12
10.6 Requirements for building grade low-density fibreboard for use in temperate humid conditions (LDF-BL MR1) 13
10.7 Requirements for general purpose low-density fibreboard for use in tropical humid conditions (LDF-GP MR2) 13
10.8 Requirements for furniture grade low-density fibreboard for use in tropical humid conditions (LDF-FN MR2) 14

11 Specific property requirements for medium-density fibreboard **14**
11.1 General 14
11.2 Requirements for general purpose medium-density fibreboard for use in dry conditions (MDF-GP REG) 15
11.3 Requirements for furniture grade medium-density fibreboard for use in dry conditions (MDF-FN REG) 15

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11.4 Requirements for building grade medium-density fibreboard for use in dry conditions (MDF-BL REG) 15
11.5 Requirements for load bearing medium-density fibreboard for use in dry conditions (MDF-LB REG) 16
11.6 Requirements for general purpose medium-density fibreboard for use in temperate humid conditions (MDF-GP MR1) 16
11.7 Requirements for furniture grade medium-density fibreboard for use in temperate humid conditions (MDF-FN MR1) 17
11.8 Requirements for building grade medium-density fibreboard for use in temperate humid conditions (MDF-BL MR1) 18
11.9 Requirements for load bearing medium-density fibreboard for use in temperate humid conditions (MDF-LB MR1) 18
11.10 Requirements for general purpose medium-density fibreboard for use in tropical humid conditions (MDF-GP MR2) 19
11.11 Requirements for furniture grade medium-density fibreboard for use in tropical humid conditions (MDF-FN MR2) 20
11.12 Requirements for building grade medium-density fibreboard for use in tropical humid conditions (MDF-BL MR2) 21
11.13 Requirements for load bearing medium-density fibreboard for use in tropical humid conditions (MDF-LB MR2) 21
11.14 Requirements for fitments grade medium-density fibreboard for use in high humid conditions (MDF-FN HMR) 22
11.15 Requirements for building grade medium-density fibreboard for use in high humid conditions (MDF-BL HMR) 23

12 Specific property requirements for high-density fibreboard 23
12.1 General 23
12.2 Requirements for general purpose high-density fibreboard for use in dry conditions (HDF-GP REG) 24
12.3 Requirements for building grade high-density fibreboard for use in dry conditions (HDF-BL REG) 24
12.4 Requirements for general purpose high-density fibreboard for use in temperate humid conditions (HDF-GP MR1) 24
12.5 Requirements for building grade high-density fibreboard for use in temperate humid conditions (HDF-BL MR1) 25
12.6 Requirements for general purpose high-density fibreboard for use in high humid conditions (HDF-GP MR2) 25
12.7 Requirements for building grade high-density fibreboard for use in tropical humid conditions (HDF-BL MR2) 26

13 Marking 26

Annex A (normative) **Calculation of 5-percentile and 95-percentile values 28**

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 89, *Wood-based panels*, Subcommittee SC 1, *Fibre boards*.

This first edition cancels and replaces ISO 16895-1:2008 and ISO 16895-2:2010, of which the product classification and specification have been technically revised.

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Wood-based panels — Dry-process fibreboard

1 Scope

This International Standard specifies a classification matrix, related mandatory tests and thickness ranges for ultra-low-, low-, medium- and high-density dry process wood-based fibreboard. It then provides the manufacturing property requirements for these types of uncoated fibreboard.

The values listed in this International Standard relate to product properties used to classify fibreboards into one of four types (UDF, LDF, MDF and HDF, see Clause 3), one of four grades (GP, FN, BL and LB), for use in one of four service conditions (REG, MR1, MR2, and HMR). The values are not characteristic values to be used for design purposes.

NOTE Fibreboards are broadly divided into two groups based on the manufacturing process, namely the dry process group and the wet process group (see Clause 3). Wet process fibreboards lie outside the scope of this International Standard.

2 Normative references

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

ISO 3340, *Fibre building boards — Determination of sand content*

ISO 9426, *Wood-based panels — Determination of dimensions of panels*

ISO 9427, *Wood-based panels — Determination of density*

ISO 12460-1, *Wood-based panels — Determination of formaldehyde release — Part 1: Formaldehyde emission by the 1-cubic-metre chamber method*

ISO 12460-2, *Wood-based panels — Determination of formaldehyde release — Part 2: Small-scale chamber method*

ISO 12460-3, *Wood-based panels — Determination of formaldehyde release — Part 3: Gas analysis method*

ISO 12460-4, *Wood-based panels — Determination of formaldehyde release — Part 4: Desiccator method*

ISO 12460-5, *Wood-based panels — Determination of formaldehyde release — Part 5: Perforator method*

ISO 16572, *Timber structures — Wood-based panels — Test methods for structural properties*

ISO 16978, *Wood-based panels — Determination of modulus of elasticity in bending and of bending strength*

ISO 16979, *Wood-based panels — Determination of moisture content*

ISO 16981, *Wood-based panels — Determination of surface soundness*

ISO 16983, *Wood-based panels — Determination of swelling in thickness after immersion in water*

ISO 16984, *Wood-based panels — Determination of tensile strength perpendicular to the plane of the panel*

ISO 16985, *Wood-based panels — Determination of dimensional changes associated with changes in relative humidity*

ISO 16987, *Wood-based panels — Determination of moisture resistance under cyclic test conditions*

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ISO 16998, *Wood-based panels — Determination of moisture resistance — Boil test*

ISO 17064, *Wood-based panels — Fibreboard, particleboard and oriented strand board (OSB) — Vocabulary*

ISO 20585:2005, *Wood-based panels — Determination of wet bending strength after immersion in water at 70 degrees C or 100 degrees C (boiling temperature)*

ISO 27528, *Wood-based panels — Determination of resistance to axial withdrawal of screws*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 17064 and the following apply.

3.1
dry process fibreboard
wood fibreboard with a forming line moisture content, as a mass fraction, of less than or equal to 20 % and whose primary bonding results from applied adhesives or resins

3.2
wet process fibreboard
wood fibreboard with a forming line moisture content, as a mass fraction, of greater than 20 % and whose primary bonding results from felting of wood fibres and their inherent adhesive properties

4 Symbols and abbreviated terms

For the purposes of this document, the following symbols and abbreviated terms apply.

BL building

DIY do-it-yourself

EXT exterior

F fungi resistant

FN furniture

FR fire retardant

GP general purpose

HDF high-density fibreboard

HMR highly moisture resistant

I insect resistant

LB load bearing

LDF low-density fibreboard

MDF medium-density fibreboard

MR1 moisture resistant — temperate

MR2 moisture resistant — tropical

REG regular

UDF ultra-low-density fibreboard

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