



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 11718-2021

Medium density fibreboard

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1 Scope

This document specifies the terms, definitions and abbreviations, classification, requirements, measurement and test methods, inspection rules, marking, packaging, transportation and storage of medium density fiberboard.

This document applies to medium density fiberboard produced by the dry process.

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.

GB/T 2828.1-2012, Sampling procedures for inspection by attributes -- Part 1:

Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection

GB/T 17657-2013, Test methods of evaluating the properties of wood-based panels and surface decorated wood-based panels

GB/T 18259-2018, Terminology for wood-based panels and their surface decoration

GB/T 19367-2009, Determination of dimensions of wood-based panels LY/T 1717-2007, Guide for sampling inspection of wood-based panels

3.1 Terms and definitions

The terms and definitions defined in GB/T 18259-2018 and LY/T 1717-2007 and the following apply to this document.

3.1.1 medium density fibreboard; MDF

The board that is made of wood fiber or other plant fiber, which is prepared by fiber preparation, applied with synthetic resin, and pressed under heating and pressure conditions. The density ranges from 0.65 g/cm³–0.80 g/cm³.

NOTE: The density ranges specified in this document are for guidance only. Manufacturers may classify products as MDF boards of a specified type if their density is within +/-10% of the density range and they meet all the performance requirements of a specified type of MDF board. For example, a fiberboard with a density of 0.83 g/cm³ may also be called MDF if it meets all the performance requirements of a specified type of MDF board grade.

3.1.2 general purpose medium density fibreboard

Medium density fiberboard for non-furniture or non-structural grade applications.

Example: Temporary display boards and partition boards used in exhibitions, etc.

[Source: GB/T 18259-2018, 3.2.18, modified]

3.1.3 furniture grade medium density fibreboard

Medium density fiberboard used for furniture or decoration usually requires secondary surface processing.

[Source: GB/T 18259-2018, 3.2.19]

3.1.4 load bearing medium density fibreboard

Medium density fiberboard usually used for small structural parts, or used in load-bearing conditions.

[Source: GB/T 18259-2018, 3.2.20]

3.1.5 building medium density fibreboard

Medium density fiberboard for general construction.

Example: window frames, door linings, etc.

3.1.6 dry conditions

Indoor environment or outdoor environment with protective measures. The moisture content

of the material in this state is equivalent to the moisture content in an environment with a temperature of 20°C and a relative humidity not higher than 65% (or the relative humidity exceeds 65% only for a few weeks in a year).

[Source: GB/T 18259-2018, 2.54]

3.1.7 humid conditions

Indoor environment or outdoor environment with protective measures. Usually refers to an environment with a temperature of 20°C and a relative humidity higher than 65% but not exceeding 85%, or an environment with a relative humidity exceeding 85% for only a few weeks in a year.

3.1.8 humid conditions-temperate

Indoor environment or outdoor environment with protective measures. The moisture content of the material in this state is equivalent to the moisture content in an environment with a temperature of 20°C and a relative humidity higher than 65% but not exceeding 85% (or the relative humidity exceeds 85% for only a few weeks in a year).

[Source: GB/T 18259-2018, 2.55, modified]

3.1.9 humid conditions-tropical

Indoor environment or outdoor environment with protective measures. The moisture content of the material in this state is equivalent to the moisture content in an environment with a temperature of 30°C and a relative humidity higher than 65% but not exceeding 85% (or the relative humidity exceeds 85% for only a few weeks in a year).

[Source: GB/T 18259-2018, 2.56, modified]

3.1.10 high-humid conditions

Indoor environment or outdoor environment with protective measures. The moisture content of the material in this state is equivalent to the moisture content in an environment with a temperature higher than 30°C and a relative humidity higher than 85%, or in an environment where it may occasionally come into contact with water (except immersion or watering).

[Source: GB/T 18259-2018, 2.57]

3.1.11 exterior conditions

Environmental conditions under outdoor natural climatic conditions.

[Source: GB/T 18259-2018, 2.58]

3.2 Abbreviations

BL: building EXT: exterior F: fungi retardant FN: furniture; furniture making, cabinet making and joinery, as well as surface decoration of these substrates FR: fire retardant

5.3.5 Additional instructions for performance requirements of load-bearing and construction products The product performance requirements specified in Tables 11–17 are not used as characteristic values for engineering design applications. If medium density fiberboard is classified as a load-bearing board or specified for building structure application and is used as a substitute for a specific load-bearing purpose, its relevant characteristic performance shall also comply with the requirements of relevant national standards (specifications).

5.4 Formaldehyde emission limit The requirements for formaldehyde emission limits for indoor medium density fiberboard are shown in GB 18580-2017.

The formaldehyde emission of furniture grade medium density fibreboard (MDF-FN EXT) for outdoor use shall be determined by negotiation between the supplier and the purchaser.

5.5 Moisture resistance The moisture resistance performance in Table 5, Table 6, Table 8, Table 9, Table 10,

Table 12 and Table 13 specifies the requirements corresponding to three optional test methods (Option 1, Option 2 and Option 3). Only one of the three options needs to be met, which is determined or clearly stated by the supplier and the purchaser through negotiation.

5.6 Other requirements

5.6.1 Other requirements for medium density fiberboard include but are not limited to the following indicators: screw holding force, surface absorption performance and dimensional stability.

5.6.2 When the purchaser has requirements for other test items, the performance requirements shall be determined through negotiation between the supplier and the purchaser.

6 Measurement and test methods

6.1 Measurement of dimensions

6.1.1 Measuring tools

6.1.1.1 Micrometer: graduation value is 0.01 mm.

6.1.1.2 Steel ruler: graduation value is 0.5 mm.

6.1.1.3 Steel tape measure: graduation value is 1.0 mm.

6.1.1.4 Metal wire (such as steel wire, etc.): diameter is not more than 0.5 mm.