SLOVENSKI STANDARD
SIST EN 14322:2022

01-februar-2022

Nadomešča:
SIST EN 14322:2017

Lesne plošče - Z melaminom oplemenitene plošče za notranje prostore - Definicija, zahteve in klasifikacija

Wood-based panels - Melamine faced boards for interior uses - Definition, requirements and classification

Holzwerkstoffe - Melaminbeschichtete Platten zur Verwendung im Innenbereich - Definition, Anforderungen und Klassifizierung

Panneaux à base de bois - Panneaux surfacés mélaminés pour usages intérieurs - Définition, exigences et classification

Ta slovenski standard je istoveten z: **EN 14322:2021**

ICS:

79.060.01	Lesne plošče na splošno	Wood-based panels in general

SIST EN 14322:2022 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

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EN 14322

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Supersedes EN 14322:2017

English Version

Wood-based panels - Melamine faced boards for interior uses - Definition, requirements and classification

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This European Standard was approved by CEN on 24 October 2021.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 14322:2021) has been prepared by Technical Committee CEN/TC 112 “Wood-based panels”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

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

This document supersedes EN 14322:2017.

Compared to EN 14322:2017 the following modifications have been made:

a) spectral measurement technology added as an option in 5.1 to determine colour matching.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies the surface requirements and dimensional tolerances for decorative melamine faced boards for interior use which are common for particleboards, extruded particleboards fibreboards and sandwich boards for furniture.

This document is not applicable to boards laminated with so called priming foils or finish foils and laminates according to EN 438-1 and EN 438-2.

This document is not applicable to laminate floor coverings.

Melamine faced wood-based boards in accordance with this document can be referred to as MFB.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 311, *Wood-based panels - Surface soundness - Test method*

EN 320, *Particleboards and fibreboards - Determination of resistance to axial withdrawal of screws*

EN 717-1, *Wood-based panels - Determination of formaldehyde release - Part 1: Formaldehyde emission by the chamber method*

EN 14323:2021, *Wood-based panels - Melamine faced boards for interior uses - Test methods*

EN ISO 11664-6, *Colorimetry - Part 6: CIEDE2000 Colour-difference formula (ISO/CIE 11664-6)*

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

ISO 13655, *Graphic technology - Spectral measurement and colorimetric computation for graphic arts images*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
melamine faced board
MFB
board manufactured by directly applying uncured aminoplastic resin impregnated papers to one or both faces of board substrates and achieving bonding and curing in the same process using heat and pressure but without the use of an intermediate adhesive

Note 1 to entry: The resin of the surface layer is an aminoplastic resin (mainly melamine resin).

Note 2 to entry: The board surfaces can be smooth or structured on one or both faces and the outer surfaces having decorative colours or design.

4 Requirements

Melamine faced boards shall comply with the general requirements as listed in Table 1 when dispatched from the producing factory. Supplementary properties are given in Annex A (normative).

Table 1 — General requirements at dispatch

No.	Property	Test method	Unit	Requirement		
				Thickness range (mm, nominal)		
				< 15	≥ 15 to 20	> 20
1)	Tolerances on nominal dimensions — thickness *t* relative to nominal value — thickness *t* within the board	EN 14323	mm	±0,3 for class 1 and class 2 according to Table 2. + 0,5/– 0,3 for class 3A, 3B and class 4 according to Table 2 and all gloss finishes.		±0,5
				t max –*t* min ≤ 0,6		
	Length and width — commercially available size — pre-cut panels	EN 14323	mm	±5 ±2,5		
2)	Flatness	EN 14323	mm/m	—	≤ 2 (only for balanced surfaces)	
3)	Edge damage — commercially available sizes — pre-cut panels	EN 14323	mm	≤ 10 ≤ 3		
4)	Surface defects	EN 14323	mm²/m² mm/m²	points ≤ 2 length ≤ 20		
5)	Resistance to scratching	EN 14323	N	≥ 1,5		
6)	Resistance to staining	EN 14323	Rating	≥ 3		
7)	Resistance to cracking	EN 14323	Rating	≥ 3		
8)	Formaldehyde release (see Annex B (normative))			class E1 or class E2		

NOTE 1 For the physical and dimensional properties, refer to the relevant standards from the series EN 622, EN 312, EN 14755 or CEN/TS 16526.

NOTE 2 Normally, unless otherwise specified, the particleboard grade used will be as required in EN 312 (P2), the MDF grade will be as described in EN 622-5 (MDF) and the hardboard grade will be as described in EN 622-2 (HB) the extruded particleboards will be as described in EN 14755 and the sandwich boards for furniture will be as described in CEN/TS 16526.

NOTE 3 On request of the customer other values can be specified.

NOTE 4 Numerous factors including changes in temperature and relative humidity in storage and fabrication areas at building sites may cause boards and panels to bow or twist irreversibly.

5 Appearance

5.1 Colour comparison

Where colour comparison is required by the purchaser this can be checked by visual assessment (light box) or by assessment using spectral measurement technology. Spectral measurement may be either spatially resolved or spectral measurement according to ISO 13655. The tests are carried out in accordance with EN 14323.

For visual assessment there shall be only slight deviation (rating 4) between the reference sample and test piece under examination when inspected according to the test method given in EN 14323. For mother of pearl and metallic finishes a rating 3 is permitted.

When assessing decorative surfaces using spectral measurement technology, a similarity index indicates the percentage of the test piece's conformity with the reference sample. The similarity indices according to EN 14323:2021, 6.8.3 and 6.8.4 are based on measured colour distances in accordance with EN ISO 11664-6 and calculated according to the procedure given in EN 14323:2021, Annex B and Annex C. The indices are decor-dependent.

When unicolours and white are assessed using measurement technology a colour difference in accordance with EN ISO 11664-6 indicates the deviation of the test piece from the reference sample.

Acceptance criteria regarding similarity are to be agreed between supplier and customer.

Since slight variations in colour will occur due to inherent variation in the surfacing papers and the core board, it is recommended that boards or panels to be used side by side should be selected from the same production batch where possible and matched to ensure colour compatibility before fabrication or installation.

5.2 Surface texture

Where matching of surface texture is required by purchaser there shall be only slight deviation (rating 4) between the reference sample and test piece under examination when inspected according to test method given in EN 14323.

6 Classification by resistance to abrasion

Five classes are defined in the classification system based on the initial wear point (IP) as shown in Table 2. The number of revolutions for each classification is determined according to EN 14323.

Table 2 — Classification of MFB according to the initial wear point

Class	IP Revolutions
1	< 50
2	≥ 50
3A	≥ 150
3B	≥ 250
4	≥ 350

7 Verification of compliance

7.1 General

Verification of compliance with this document shall be carried out using the test methods specified in EN 14323.

7.2 Factory production control

The properties in Table 1 and Table 2 shall be controlled by the producer. Sampling shall be carried out at random. Alternative test methods and/or unconditioned test pieces may be used for factory production control.

7.3 External control

If external control is deemed necessary, the test method listed in EN 14323 shall be used.

8 Marking

Each panel or package of panels shall be clearly marked by the manufacturer by indelible direct printing on the edge or by a label with at least the following information in this sequence:

a) manufacturer's name, trade mark, or identification mark;

b) number of the relevant specification EN of the substrate and the type;

EXAMPLE MFB EN 312 P2; MFB EN 622-5 MDF.

c) nominal thickness;

d) formaldehyde class;

e) batch number.

Where the first purchaser is the user of the product and where he/she agrees that marking (other than on the package) is unnecessary, the marking of such individual panels in the package need not be undertaken.

Annex A
(normative)

Supplementary properties

For certain applications, information on some of the properties listed in Table A.1 can be required. On request, this information shall be supplied by the MFB manufacturer, and in this case shall have been derived using the EN test methods listed in Table A.1.

Table A.1 — Supplementary properties and test methods

Property	Test method
Resistance to axial withdrawal of screws	EN 320
Resistance to steam	EN 14323
Resistance to impact by large diameter steel ball	EN 14323
Resistance to colour change in xenon arc light	EN 14323
Gloss	EN 14323
Surface soundness	EN 311