

Solid wood panels (SWP) - Requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Solid wood panels (SWP) - Requirements

Bois panneau? (SWP) - Exigences

Massivholzplatten (SWP) - Anforderungen

This European Standard was approved by CEN on 20 April 2022.

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European foreword

This document (EN 13353:2022) 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of an identical text or by endorsement, at the latest by January 2023, and conflicting national standards shall be withdrawn at the latest by January 2023.

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This document supersedes EN 13353:2008+A1:2011.

Compared to EN 13353:2008+A1:2011, the following changes have been made:

- a) additional types of adhesive for load-bearing panels were included, see 4.3.4;
- b) modification of the thickness range and of the requirements for single-layer panels given in Table 3;
- c) modification of the thickness ranges and of the requirements for multi-layer panels given in Table 4;
- d) Annex B (normative) included (alternative to determining the characteristic values for the homogeneous rectangular substitute cross-section);
- e) editorial changes.

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.

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1 Scope

This document specifies requirements for solid wood panels as specified in EN 12775 with a maximum thickness of 80 mm for use in dry, humid and exterior conditions as specified in service classes 1, 2 and 3 of EN 1995-1-1.

Additional information on supplementary properties for certain applications is given in Annex A.

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 301, *Adhesives, phenolic and aminoplastic, for load-bearing timber structures - Classification and performance requirements*

EN 318, *Wood based panels - Determination of dimensional changes associated with changes in relative humidity*

EN 322, *Wood-based panels - Determination of moisture content*

EN 323, *Wood-based panels - Determination of density*

EN 324-1, *Wood-based panels - Determination of dimensions of boards - Part 1: Determination of thickness, width and length*

EN 324-2, *Wood-based panels - Determination of dimensions of boards - Part 2: Determination of squareness and edge straightness*

EN 326-1, *Wood-based panels - Sampling, cutting and inspection - Part 1: Sampling and cutting of test pieces and expression of test results*

EN 326-2, *Wood-based panels - Sampling, cutting and inspection - Part 2: Initial type testing and factory production control*

EN 335, *Durability of wood and wood-based products - Use classes: definitions, application to solid wood and wood-based products*

EN 384, *Structural timber - Determination of characteristic values of mechanical properties and density*

EN 594, *Timber structures - Test methods - Racking strength and stiffness of timber frame wall panels*

EN 596, *Timber structures - Test methods - Soft body impact test of timber framed walls*

EN 789, *Timber structures - Test methods - Determination of mechanical properties of wood based panels*

EN 1058, *Wood-based panels - Determination of characteristic 5-percentile values and characteristic mean values*

EN 1195, *Timber structures - Test methods - Performance of structural floor decking*

EN 1995-1-1, *Eurocode 5: Design of timber structures - Part 1-1: General - Common rules and rules for buildings*

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

EN 12775, *Solid wood panels - Classification and terminology*

EN 12871, *Wood-based panels - Determination of performance characteristics for load bearing panels for use in floors, roofs and walls*

EN 13017-1, *Solid wood panels - Classification by surface appearance - Part 1: Softwood*

EN 13017-2, *Solid wood panels - Classification by surface appearance - Part 2: Hardwood*

EN 13183-2, *Moisture content of a piece of sawn timber - Part 2: Estimation by electrical resistance method*

EN 13354, *Solid wood panels (SWP) - Bonding quality - Test method*

EN 13446, *Wood-based panels - Determination of withdrawal capacity of fasteners*

EN 13986, *Wood-based panels for use in construction - Characteristics, evaluation of conformity and marking*

EN 15416-3, *Adhesives for load bearing timber structures other than phenolic and aminoplastic - Test methods - Part 3: Creep deformation test at cyclic climate conditions with specimens loaded in bending shear*

CEN/TS 635-4, *Plywood - Classification by surface appearance - Part 4: Parameters of ability for finishing, guideline*

3 Terms and definitions and classes

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12775 and the following apply.

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

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1.1

solid wood panel for use in dry conditions

panel intended for use in interior applications with no risk of wetting as specified in service class 1 of EN 1995-1-1 and use class 1 of EN 335

Note 1 to entry: Service class 1 is characterized by a moisture content of the material corresponding to a temperature of 20 °C and a relative humidity of the surrounding air exceeding 65 % for only a few weeks per year.