SLOVENSKI STANDARD
SIST EN 13810-1:2004

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Lesne ploġ e ï Plavajoļ i podi ï 1. del: Lastnosti in zahteve

Wood-based panels - Floating floors - Part 1: Performance specifications and requirements

Holzwerkstoffe - Schwimmend verlegte Fußböden - Teil 1: Leistungsspezifikationen und Anforderungen

Panneaux a base de bois - Planchers flottants - Partie 1: Exigences et spécifications fonctionnelles

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EUROPEAN STANDARD

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This European Standard was approved by CEN on 23 October 2002.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

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 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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Contents

Foreword

This document (EN 13810-1:2002) 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of an identical text or by endorsement, at the latest by June 2003, and conflicting national standards shall be withdrawn at the latest by June 2003.

This standard is one of two performance standards for wood-based panels used in floating floors.

No existing European Standard is superseded.

Annex A is informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard provides the performance specifications and requirements for wood-based panels used in continuously fully supported non-structural floating floors.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

General

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

EN 321, *Wood-based panels — Determination of moisture resistance under cyclic test conditions.*

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

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 335-3, *Durability of wood and wood-based products — Definition of hazard classes of biological attack — Part 3: Application to wood-based panels.*

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

EN 1058, *Wood-based panels — Determination of characteristic values of mechanical properties and density.*

EN 1087-1, *Particleboards — Determination of moisture resistance — Part 1: Boil test.*

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

EN 12369-1, *Wood-based panels — Characteristic values for structural design — Part 1: OSB, particleboards and fibreboards.*

EN 12871:2001, *Wood-based panels — Performance specifications and requirements for load bearing boards for use in floors, walls and roofs.*

EN 1991-1-1, *Eurocode 1: Actions on structures — Part 1-1: General actions; Densities, self-weight and imposed loads for buildings.*

ENV 1995-1-1:1993, *Eurocode 5 — Design of timber structures — Part 1-1: General rules and rules for buildings.*

prCEN/TS 13810-2, *Wood-based panels — Floating floors — Part 2: Test methods.*

Particleboards

EN 312-1, *Particleboards — Specifications — Part 1: General requirements for all board types.*

EN 312-4, *Particleboards — Specifications — Part 4: Requirements for load-bearing boards for use in dry conditions.*

EN 312-5, *Particleboards — Specifications — Part 5: Requirements for load-bearing boards for use in humid conditions.*

EN 312-6, *Particleboards — Specifications — Part 6: Requirements for heavy duty load-bearing boards for use in dry conditions.*

EN 312-7, *Particleboards — Specifications — Part 7: Requirements for heavy duty load-bearing boards for use in humid conditions.*

OSB

EN 300, *Oriented Strand Boards (OSB) — Definitions, classification and specifications.*

Plywood

EN 313-1, *Plywood — Classification and terminology — Part 1: Classification.*

EN 313-2, *Plywood — Classification and terminology — Part 2: Terminology.*

EN 314-1, *Plywood — Bonding quality — Part 1: Test methods.*

EN 314-2, *Plywood — Bonding quality — Part 2: Requirements.*

EN 315, *Plywood — Tolerances for dimensions.*

EN 635-1, *Plywood — Classification by surface appearance — Part 1: General.*

EN 635-2, *Plywood — Classification by surface appearance — Part 2: Hardwood.*

EN 635-3, *Plywood — Classification by surface appearance — Part 3: Softwood.*

EN 636-1, *Plywood — Specifications — Part 1: Requirements for plywood for use in dry conditions.*

EN 636-2, *Plywood — Specifications — Part 2: Requirements for plywood for use in humid conditions.*

EN 636-3, *Plywood — Specifications — Part 3: Requirements for plywood for use in exterior conditions.*

ENV 1099, *Plywood — Biological durability — Guidance for the assessment of plywood for use in different hazard classes.*

Solid wood panels

EN 12775, *Solid wood panels — Classification and terminology.*

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.*

prEN 13353, *Solid wood panels (SWP) — Requirements.*

prCEN/TS 13354, *Solid wood panels — Bonding quality — Test method.*

Fibreboard

EN 622-1, *Fibreboards — Specifications — Part 1: General requirements.*

EN 622-2, *Fibreboards — Specifications — Part 2: Requirements for hardboards.*

EN 622-3, *Fibreboards — Specifications — Part 3: Requirements for medium boards.*

EN 622-5, *Fibreboards — Specifications — Part 5: Requirements for dry process boards (MDF).*

Cement bonded particleboards

EN 634-1, *Cement-bonded particleboards — Specifications — Part 1: General requirements.*

EN 634-2, *Cement-bonded particleboards — Specifications — Part 2: Requirements for OPC bonded particleboards for use in dry, humid and exterior conditions.*

3 Terms and definitions

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

3.1
floating floor
decking of wood-based panels continuously supported by one or more resilient materials, without being fixed to the floor base

3.2
service class
see ENV 1995-1-1:1993

4 Specifications

4.1 Wood-based panel decking

4.1.1 General

Any load-bearing panel complying with EN 13986 may be used as floating floor systems.

Specifications shall take into account the factors given in Tables 1 and 2.

Table 1 — Characteristics of panel products to be considered in specifications

Particleboard	OSB	Plywood and solid wood panel	Fibreboard	Cement bonded particleboard
Grade Thickness Service class	Grade Thickness Service class	Lay-up Wood-species Surface appearance class Thickness Service class	Grade Thickness Service class	Grade Thickness Service class

The following parameters shall be specified for wood-based panels when used in floating floors (see Table 2):

— type of (decking) panel;

— joints;

1) tongue and groove on all four panel edges;
2) glue;

— conditioning before installation:

1) moisture content;
2) dimensional changes due to change in moisture content.

Table 2 — European Standards for specifications and test methods relevant to the design parameters of floating floor decking

Design parameter	Relevant EN	Explanation
Joints		
— tongue & groove or similar	EN 324-1/2	Dimension
	EN 324-1	Tolerances
— nail, screw or similar	—	Specified by the performance test
— glue type	—	Specified by the performance test
Conditioning before installation		
— moisture content	EN 322	Specified by the manufacturer Related to service class
— dimensional changes	EN 318	Specified by the manufacturer Related to service class and function
Particleboard		
— thickness	EN 324-1	As stated by the manufacturer
	EN 312-1	Tolerances
— service class/grade	EN 312-4/5/6/7	As stated by the manufacturer
OSB		
— thickness	EN 324-1	As stated by the manufacturer
	EN 300	Tolerances
— service class/grade	EN 300	As stated by the manufacturer (OSB/2, OSB/3 or OSB/4)
Plywood		
— lay-up	EN 313-1/2	As stated by the manufacturer
— wood species and surface appearance class	EN 635-1/2/3	As stated by the manufacturer
— thickness	EN 324-1	As stated by the manufacturer
	EN 315	Tolerances
— service class	EN 636-1/2/3	As stated by the manufacturer
Solid wood panel		
— lay-up	EN 12775	As stated by the manufacturer
— wood species and surface appearance class	EN 13017-1/2	As stated by the manufacturer
— thickness	EN 324-1	As stated by the manufacturer
	EN 315	Tolerances
— service class	prEN 13353	As stated by the manufacturer
Fibreboard		
— thickness	EN 324-1	As stated by the manufacturer
	EN 622-1	Tolerances
— service class, type and grade	EN 622-2/3/5	As stated by the manufacturer
Cement bonded particleboard		
— thickness	EN 324-1	As stated by the manufacturer
	EN 634-1	Tolerances
— service class	EN 634-2	As stated by the manufacturer

4.1.2 Durability

The following properties shall be specified for all wood-based panels used for floating floor decking in service class 1 or 2 (see Table 3):

— biological durability

— moisture resistance and glue bond quality depending on panel type

Table 3 — European Standards relating to the durability of wood-based panels

Wood-based panel	Relevant EN	Explanation
Particleboard		
	EN 335-3	Biological hazard class
	EN 312-4/5/6/7	Service class 1 — Dry conditions
	EN 312-5/7	Service class 2 — Humid conditions
	EN 321	Service class 2 — Cyclic test
	EN 1087-1	Service class 2 — Boil test
Plywood		
	EN 335-3	Biological hazard class
	ENV 1099	Guideline for biological durability[b]
	EN 636-1/2/3	Service class 1 — Dry conditions
	EN 636-2/3	Service class 2 — Humid conditions
	EN 314-1/2	Tests and requirement according to service class
Solid wood panel		
	EN 335-3	Biological hazard class
	prEN 13353	Service class 1 — Dry conditions
	prEN 13353	Service class 2 — Humid conditions
	prCEN/TS 13354	Tests and requirement according to service class
OSB		
	EN 335-3	Biological hazard class
	EN 300 OSB/2/3/4	Service class 1 — Dry conditions
	EN 300 OSB/3/4	Service class 2 — Humid conditions
	EN 321	Service class 2 — Cyclic test
	EN 1087-1	Service class 2 — Boil test [a]
Fibreboard		
	EN 335-3	Biological hazard class
	EN 622-2/3/5	Service class 1 — Dry conditions
	EN 622-2/3/5	Service class 2 — Humid conditions
	EN 321	Service class 2 — Cyclic test
	EN 1087-1	Service class 2 — Boil test [a]
Cement bonded particleboard		
	EN 335-3	Biological hazard class
	EN 634-2	Service class 1 — Dry conditions
	EN 634-2	Service class 2 — Humid conditions
	EN 321	Service class 2 — Cyclic test

[A] EN 1087-1 test methods are modified for OSB and Fibreboard type MDF, see panel specification standard

[B] This standard describes the moisture content that can be attained by different panel products and their risk of attack from different wood-destroying organisms (fungi, insects and marine borers) when exposed to different service environments. The service environments are defined in terms of the hazard classed of biological attack (see EN 335-1). It does not define the expected service life of the different panel products when used in different service environments.