SLOVENSKI STANDARD
SIST EN 13228:2011

01-oktober-2011

Nadomešča:
SIST EN 13228:2003
SIST EN 13228:2003/AC:2007

Lesene talne obloge - Masivne lesene talne obloge, vključno s kockami za sisteme zapore

Wood flooring - Solid wood overlay flooring elements including blocks with an interlocking system

Holzfussböden - Massivholz-Overlay-Parkettstäbe einschliesslich mit einem Verbindungssystem

Plancher en bois - Lames de parquets en bois massifs de recouvrement, blocs anglais compris, avec systèmes de guidage

Ta slovenski standard je istoveten z: **EN 13228:2011**

ICS:

79.080	Polizdelki iz lesa	Semi-manufactures of timber
97.150	Netekstilne talne obloge	Non-textile floor coverings

SIST EN 13228:2011 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13228

May 2011

ICS 79.080

Supersedes EN 13228:2002

English Version

Wood flooring - Solid wood overlay flooring elements including blocks with an interlocking system

Plancher en bois - Eléments de parquets en bois massifs de recouvrement, blocs anglais compris, avec systèmes de guidage

Holzfußböden - Massivholz-Overlay-Parkettstäbe einschließlich Parkettblöcke mit einem Verbindungssystem

This European Standard was approved by CEN on 14 April 2011.

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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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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 13228:2011) has been prepared by Technical Committee CEN/TC 175 “Round and sawn timber”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by November 2011, and conflicting national standards shall be withdrawn at the latest by November 2011.

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

This document supersedes EN 13228:2002.

In this European Standard the Annex A is informative and Annex B is normative.

Compared with EN 13228:2002, the following modifications have been made:

a) Modification of the 2nd sentence of the scope;

b) Modification of dimensional characteristics of overlay flooring element (5.4.2.2);

c) Editorial modification on row 7 of Table 8 of 5.4.4.1;

d) Modification of limit deviation of cup (5.4.4.3), bow (5.4.4.4), spring (5.4.4.5);

e) Deletion of "specific site requirements" (5.5.2);

f) Updating of Clause 2 "Normative references" and bibliography.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This standard is one of a series of standards about wood flooring and wood panelling and cladding.

This standard specifies the characteristics of solid wood flooring elements. It is based upon current dimensional standards used in the industry and other characteristics together with functions which have been verified by test.

A large amount of knowledge exists about solid wood flooring elements and values for product characteristics are attested by long use and experience. It is therefore not necessary to have test results. For new products technical data will have to be verified by testing.

The appearance of the wood flooring is mainly influenced by species, classification and the pattern.

1 Scope

This European Standard specifies the characteristics of solid wood overlay flooring including blocks with an interlocking system for internal use as flooring. It applies to elements.

This standard covers elements with and without surface coating.

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.

EN 844-1:1995, *Round and sawn timber — Terminology — Part 1: General terms common to round timber and sawn timber*

EN 844-3:1995, *Round and sawn timber — Terminology — Part 3: General terms relating to sawn timber*

EN 844-4:1997, *Round and sawn timber — Terminology — Part 4: Terms relating to moisture content*

EN 844-6:1997, *Round and sawn timber — Terminology — Part 6: Terms relating to dimensions of sawn timber*

EN 844-9:1997, *Round and sawn timber — Terminology — Part 9: Terms relating to features of sawn timber*

EN 844-10:1998, *Round and sawn timber — Terminology — Part 10: Terms relating to stain and fungal attack*

EN 844-11:1998, *Round and sawn timber — Terminology — Part 11: Terms relating to degrade by insects*

EN 844-12:2000, *Round and sawn timber — Terminology — Part 12: Additional terms and general index*

EN 1310:1997, *Round and sawn timber — Method of measurement of features*

EN 1311, *Round and sawn timber — Method of measurement of biological degrade*

EN 1534, *Wood flooring — Determination of resistance to indentation — Test method*

EN 13183-1, *Moisture content of a piece of sawn timber — Part 1: Determination by oven dry method*

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

EN 13647, *Wood flooring and wood panelling and cladding — Determination of geometrical characteristics*

EN 13756:2002, *Wood flooring — Terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 844-1:1995, EN 844-3:1995, EN 844-4:1997, EN 844-6:1997, EN 844-9:1997, EN 844-10:1998, EN 844-11:1998, EN 844-12:2000 and in EN 13756:2002 and the following apply:

3.1
block
element with an interlocking system

NOTE It is defined by the relevant dimensional limits in 5.4.3 and Tables 7 and 8.

3.2
overlay flooring element
element with an interlocking system with a thickness which renders it suitable for laying on a continuous supporting surface

[EN 13756:2002]

3.3
interlocking system
system of assembly based upon a male and a female profile that does not have a load-bearing function, allowing the positioning of elements during installation

[EN 13756:2002]

3.4
thickness above the groove
thickness between the face and any discontinuity such as a change in the profile (excluding chamfering), a groove/glue pocket or a glue line (excluding the glue line of finger-joints)

[EN 13756:2002]

4 Symbols and abbreviations

L Length of the face of the element

b Width of the face of the element

b_1 Depth of the female profile

b_2 Width of the male profile

b_3 Undercut

t Thickness between the face and the back of the element

t_1 Thickness above the groove

t_2 Width of the female profile

t_3 Thickness of the male profile

t_4 Thickness of the part below the male profile

α Angle that an edge makes to a plane normal to adjacent face, in degrees

5 Specific product requirements

5.1 Wood species

A list of the most commonly used species for wood flooring elements as described in this standard is given in Annex A.

5.2 Appearance

5.2.1 General rules

Tables 1 to 6 define the classification relating to appearance rules for the face and for the non-visible parts (back and edges) of an element of the most commonly used species for solid wood flooring as defined in this standard.

Features shall be measured according to EN 1310 (knots assessed according to the general method of 4.1 in EN 1310:1997). Bio deterioration is measured according to EN 1311.

A classification with three appearance classes is specified, designated ○, Δ and □.

A classification named "Free class" is based on the principles laid out in Annex B.

To allow for unavoidable classification differences, 3 % of the strips in a batch may be other classes. Any additional strips from other classes are allowed as long as the general impression of the floor is not disturbed.

The face shall include all the visible surface of the element. It shall therefore extend to the chamfering[1)] if any.

The face shall be free from shake and the wood shall be sound.

Any continuous glue joint which allows renovation without significantly changing the appearance or the functional characteristics is acceptable.

1) The chamfering is visible when elements are assembled.

5.2.2 Rules for the most commonly used species

5.2.2.1 *Quercus* spp. (oak)

Rules for oak are given in Table 1.

Table 1 — Classification for *Quercus* spp. (oak)

Face of the element			
Features	**Class**		
	○	Δ	□
Sound sapwood	Not permitted	Permitted	Slight traces permitted
Knots Sound and intergrown Unsound knots	Permitted if: diameter ≤ 2 mm Not permitted	Permitted if: diameter ≤ 5 mm diameter ≤ 3 mm	Permitted if: diameter ≤ 15 mm diameter ≤ 10 mm
Checks	Not permitted	Permitted up to 15 mm in length	All features permitted without limit to size or quantity if these do not impair the strength or the wearing quality of the wood flooring.
Bark pockets	Not permitted	Not permitted	
Lightning shake	Not permitted	Not permitted	
Slope of grain	Permitted, no limit	Permitted, no limit	
Colour variation	Slight variation permitted	Permitted [a]	
Medullary ray	Permitted	Permitted	
Biodeterioration	Not permitted	Not permitted	Not permitted, except blue stain and black holes
Non-visible parts			
All features permitted without limit to size or quantity if these do not impair the strength or the wearing quality of the wood flooring. Sound sapwood is permitted from the back up to the upper part of the male profile of the interlocking system without taking into account the limits set for the face.			

[a] Brown oak.

5.2.2.2 *Fraxinus excelsior* (European ash) and *Acer* spp. (maple)

Rules for European ash and maple are given in Table 2.

Table 2 — Classification for *Fraxinus excelsior* (European ash) and *Acer* spp. (maple)

Face of the element			
Features	**Class**		
	○	∆	□
Sound sapwood	Not applicable	Not applicable	Not applicable
Knots Sound and intergrown b < 70 mm b ≥ 70 mm Unsound knots	Permitted if: diameter ≤ 2 mm diameter ≤ 3 mm Not permitted	Permitted if: diameter ≤ 5 mm diameter ≤ 10 mm diameter ≤ 3 mm	Permitted if: diameter ≤ 15 mm diameter ≤ 30 mm diameter ≤ 10 mm
Checks	Not permitted	Not permitted	Not permitted
Bark pockets	Not permitted	Not permitted	Not permitted
Lightning shake	Not permitted	Not permitted	Not permitted
Slope of grain	Permitted, no limit	Permitted, no limit	Permitted, no limit
Colour variation	Slight variation permitted. Slight traces of natural discoloration (mineral lines) permitted.	Permitted	Permitted
Stick marks	Not permitted	Permitted	Permitted
Biodeterioration	Not permitted	Not permitted	Not permitted, except blue stain and black holes
Non-visible parts			
All features permitted without limit to size or quantity if these do not impair the strength or the wearing quality of the wood flooring.			

5.2.2.3 *Fagus sylvatica* (European beech)

Rules for European beech are given in Table 3.

Table 3 — Classification for *Fagus sylvatica* (European beech)

Face of the element			
Features	**Class**		
	○	Δ	□
Sound sapwood	Not applicable	Not applicable	Not applicable
Knots	Permitted if:	Permitted if:	Permitted if:
Sound and intergrown			
b < 70 mm	diameter ≤ 2 mm	diameter ≤ 5 mm	diameter ≤ 15 mm
b ≥ 70 mm	diameter ≤ 3 mm	diameter ≤ 10 mm	diameter ≤ 30 mm
Unsound knots	Not permitted	diameter ≤ 3 mm	diameter ≤ 10 mm
Checks	Not permitted	Not permitted	Not permitted
Bark pockets	Not permitted	Not permitted	Not permitted
Lightning shake	Not permitted	Not permitted	Not permitted
Slope of grain	Permitted, no limit	Permitted, no limit	Permitted, no limit
Colour variation	Slight variation permitted [a]. Slight traces of natural discoloration permitted.	Permitted	Permitted
Red heart	Not permitted	Permitted	Permitted
Stick marks	Not permitted	Permitted	Permitted
Medullary ray	Permitted	Permitted	Permitted
Biodeterioration	Not permitted	Not permitted	Not permitted, except blue stain and black holes
Non-visible parts			
All features permitted without limit to size or quantity if these do not impair the strength or the wearing quality of the wood flooring.			

[a] Permitted for steamed beech.