



# SLOVENSKI STANDARD

## SIST EN 13489:2003

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### Wood flooring - Multi-layer parquet elements

Wood flooring - Multi-layer parquet elements

Holzfußböden - Mehrschichtparkettelemente

Planchers en bois - Éléments de parquet contrecollé

Ta slovenski standard je istoveten z: **EN 13489:2002**

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Polizdelki iz lesa

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**SIST EN 13489:2003**

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EUROPEAN STANDARD

EN 13489

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2002

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## Wood flooring - Multi-layer parquet elements

Planchers en bois - Eléments de parquet contrecollé

Holzfußböden - Mehrschichtparkettelemente

This European Standard was approved by CEN on 4 November 2002.

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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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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## Foreword

This document (EN 13489:2002) 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of an identical text or by endorsement, at the latest by June 2003, and conflicting national standards shall be withdrawn at the latest by June 2003.

In this European Standard annex A is informative and annex B is normative.

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.

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**EN 13489:2002 (E)****Introduction**

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

This standard specifies the characteristics of multi-layer parquet. 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 multi-layer parquet 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 parquet floor is mainly influenced by species, classification and the pattern.

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## 1 Scope

This European Standard specifies the characteristics of multi-layer parquet elements for internal use as flooring.

## 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).

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 and parquet flooring - Determination of resistance to indentation (Brinell) - Test method.*

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

EN 13488, *Wood flooring – Mosaic parquet elements.*

EN 13647, *Wood and parquet flooring (and wood panelling and cladding) - Measurement of geometrical characteristics.*

EN 13756, *Wood flooring – Terminology.*

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## 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 13756 and the following apply.

### 3.1

#### **cup**

curvature of an element across the width of the face

[EN 13756]

### 3.2

#### **spring**

lengthwise curvature of an element normal to the edge

[EN 13756]

NOTE It should be measured with zero bow.

### 3.3

#### **multi-layer parquet**

element of laminated construction consisting of a top layer of solid wood and additional layer(s) of wood, or wood-based materials, glued together

[EN 13756, 2.4]

**EN 13489:2002 (E)****3.4****strip**

smallest single item forming the top layer of each element.

**3.5****element**

smallest individual piece or the smallest piece as delivered prior to installation

[EN 13756]

**3.6****lipping**

difference in height between the faces of two adjacent and assembled elements when laid on a flat surface

[EN 13756]

**4 Specific product requirements****4.1 Wood species**

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

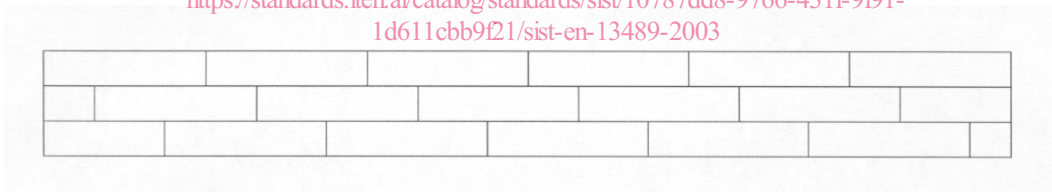
**4.2 Typical types and patterns**

Figures 1 to 4 give examples of common types/patterns of multi-layer parquet elements.

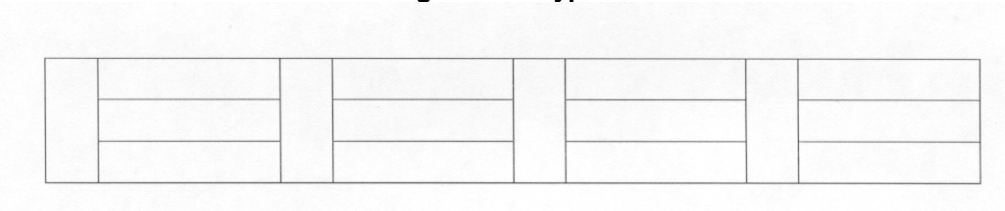
Figures 2 and 3 are examples of types which are intended for patterned installation.

Elements in Figure 3 are usually of smaller dimensions.

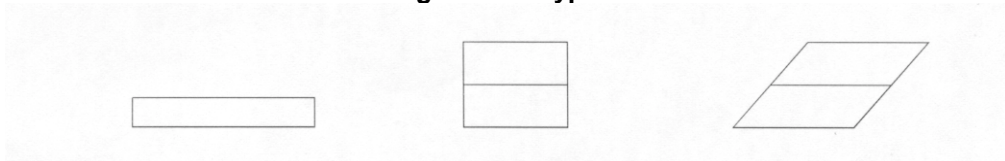
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**Figure 1 — Type 1**



**Figure 2 — Type 2**



**Figure 3 — Type 3 (an element intended for patterned installation)**



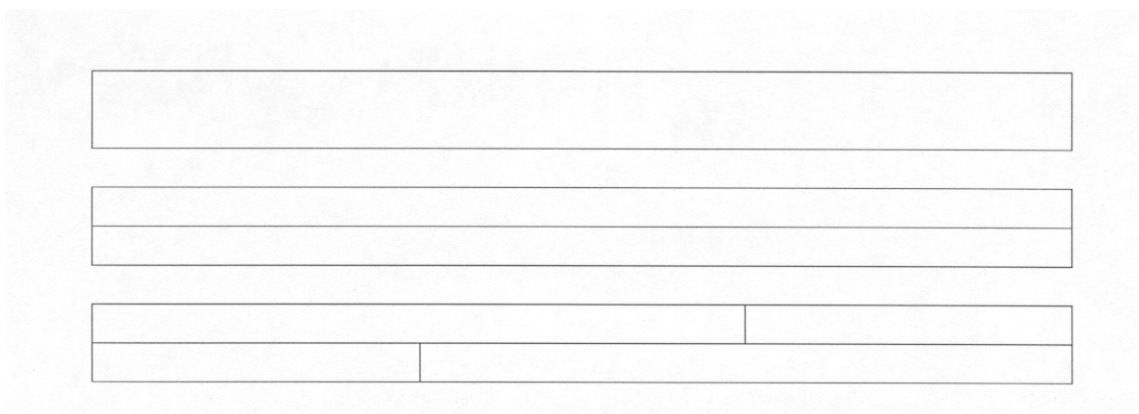


Figure 4 — Type 4

### 4.3 Finishing

The surface treatment used and any artificial change of the natural wood colour shall be stated in the product description.

NOTE The product is usually delivered with a factory applied surface coating which allows the product to be taken into use immediately after installation.

### 4.4 Appearance

#### 4.4.1 General rules

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Tables 1 to 4 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 multi-layer parquet 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). Biodeterioration is measured according to EN 1311.

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

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

The material used for the top layer shall be selected hardwood or softwood, fresh and sound without rot, fungus, mould or insect damage. There will be variations from strip to strip, but the total impression of the installed floor shall show a homogeneous character of each classification.

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

Multi-layer parquet with a mosaic-like pattern shall be classified according to EN 13488.

#### 4.4.2 Classification rules for type 1, 2 and 3 parquet

##### 4.4.2.1 Rules for the most commonly used species

##### 4.4.2.1.1 *Quercus* spp. (oak)

Rules for oak are given in Table 1.

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

Face of the element			
Features	Class		
	○	△	□
<b>Sound sapwood</b>	Not permitted	Permitted up to 50 % of the face, if distributed	All features permitted without limit to size or quantity if these do not impair the strength or the wearing quality of the parquet flooring.
<b>Knots</b> <sup>a</sup> Sound and intergrown Unsound knots	Permitted if: diameter ≤ 3 mm diameter ≤ 1 mm if not grouped together <sup>b</sup>	Permitted if: diameter ≤ 8 mm diameter ≤ 2 mm	
<b>Checks</b>	Not permitted	Permitted up to 20 mm in length per strip	
<b>Bark pockets</b>	Not permitted	Not permitted	
<b>Lightning shake</b>	Not permitted	Not permitted	
<b>Slope of grain</b>	Permitted, no limit	Permitted, no limit	
<b>Colour variation</b>	Slight variation permitted	Permitted	
<b>Medullary ray</b>	Permitted	Permitted	
<b>Biodeterioration</b>	Not permitted	Not permitted	
<b>Non-visible parts</b>			
All features permitted without limit to size or quantity if these do not impair the strength or the wearing quality of the parquet flooring.			
<sup>a</sup> Cracks in knots and knot holes shall be filled. <sup>b</sup> Knots are grouped together if the distance separating them, measured from edge to edge, does not exceed 30 mm.			

#### 4.4.2.1.2 *Fraxinus excelsior* (European ash), *Fagus sylvatica* (European beech), *Betula* spp. (birch) and *Acer* spp. (maple)

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

**Table 2 — Classification for *Fraxinus excelsior* (European ash), *Fagus sylvatica* (European beech), *Betula* spp. (birch) and *Acer* spp. (maple)**

Face of the element			
Features	Class		
	○	Δ	□
<b>Sound sapwood</b>	Not applicable	Not applicable	Not applicable
<b>Knots</b> <sup>a</sup> Sound and intergrown Unsound knots	Permitted if: diameter ≤ 3 mm diameter ≤ 1 mm if not grouped together <sup>b</sup>	Permitted if: diameter ≤ 8 mm <sup>c</sup> diameter ≤ 2 mm <sup>c</sup>	All features permitted without limit to size or quantity if these do not impair the strength or wearing quality of the parquet flooring.
<b>Checks</b>	Not permitted	Permitted up to 20 mm in length per strip	
<b>Bark pockets</b>	Not permitted	Not permitted	
<b>Lightning shake</b>	Not permitted	Not permitted	
<b>Slope of grain</b>	Permitted, no limit	Permitted, no limit	
<b>Colour variation</b>	Slight variation permitted <sup>d</sup> . Slight traces of natural discoloration permitted	Permitted	
<b>Red heart and black heart</b> <sup>e</sup>	Not permitted	Permitted up to 50 % of the face, if distributed	
<b>Stick marks</b>	Not permitted	Permitted	
<b>Medullary ray</b>	Permitted	Permitted	
<b>Biodeterioration</b>	Not permitted	Not permitted	
Non-visible parts			
All features permitted without limit to size or quantity if these do not impair the strength or wearing quality of the parquet flooring.			
<p><sup>a</sup> Cracks in knots and knot holes shall be filled.</p> <p><sup>b</sup> Knots are grouped together if the distance separating them, measured from edge to edge, does not exceed 30 mm.</p> <p><sup>c</sup> No limitation in <i>Betula</i> spp. (birch).</p> <p><sup>d</sup> Permitted for steamed beech.</p> <p><sup>e</sup> Brown heart for birch and maple</p>			