



SLOVENSKI STANDARD
oSIST prEN 13489:2022
01-januar-2022

Lesene talne obloge in parket - Večslojni parketni elementi

Wood-flooring and parquet - Multi-layer parquet elements

Holzfußböden und Parkett - Mehrschichtparkettelemente

Planchers en bois et parquets - Éléments de parquet contrecollé

Ta slovenski standard je istoveten z: prEN 13489

[oSIST prEN 13489:2022](https://standards.iteh.ai/catalog/standards/sist/ef13e4b8-26b3-4817-9214-b6577648ae43/osist-pren-13489-2022)

<https://standards.iteh.ai/catalog/standards/sist/ef13e4b8-26b3-4817-9214-b6577648ae43/osist-pren-13489-2022>

ICS:

79.080	Polizdelki iz lesa	Semi-manufactures of timber
97.150	Talne obloge	Floor coverings

oSIST prEN 13489:2022

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[oSIST prEN 13489:2022](#)

<https://standards.iteh.ai/catalog/standards/sist/ef13e4b8-26b3-4817-9214-b6577648ae43/osist-pren-13489-2022>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 13489

November 2021

ICS 79.080

Will supersede EN 13489:2017

English Version

Wood-flooring and parquet - Multi-layer parquet elements

Planchers en bois et parquets - Eléments de parquet
contrecollé

Holzfußböden und Parkett -
Mehrschichtparkettelemente

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 175.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

CEN members are the national standards bodies of 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 United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	5
4 Requirements.....	6
4.1 Technical requirements.....	6
4.1.1 General.....	6
4.1.2 Moisture content	6
4.1.3 Dimensional characteristics and limit deviations	6
4.1.4 Hardness.....	7
4.1.5 Finishing.....	7
4.1.6 Bonding quality.....	8
4.1.7 Specific site requirements	8
4.2 Requirements for wood species.....	8
4.2.1 Introduction.....	8
4.2.2 General rules.....	8
4.2.3 Classification rules for species.....	8
4.2.4 Natural colours	13
4.2.5 Classification.....	13
5 Renovation and repair	13
6 Labelling.....	14
Annex A (informative) Botanical and trade names of the most commonly used species for wood flooring (hardwood and softwood species).....	15
Annex B (normative) Principles for the classification of the free class.....	23
Bibliography.....	25

European foreword

This document (EN 13489:2021) has been prepared by Technical Committee CEN/TC 175 “Round and sawn timber”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 13489:2017.

In comparison with the previous edition, the following changes have been made:

- A complete revision of EN 13489 has been done, especially:
 - a) Update to revised terminology standard EN 13756:2019;
 - b) Update to revised standard for geometrical characteristics acc. EN 13647:2019;
 - c) Update to revised Brinell Hardness standard EN 1534:2020.
- Including a reference to test methods for surface finishes (Chemical resistance / Abrasion / Elasticity) acc. EN 13696 and EN 13442.
- Including a reference to a test method and min. requirement for top layer bonding acc. prEN 17459.

ITEH STANDARD PREVIEW
(standards.iteh.ai)

[oSIST prEN 13489:2022](https://standards.iteh.ai/catalog/standards/sist/ef13e4b8-26b3-4817-9214-b6577648ae43/osist-pren-13489-2022)
<https://standards.iteh.ai/catalog/standards/sist/ef13e4b8-26b3-4817-9214-b6577648ae43/osist-pren-13489-2022>

prEN 13489:2021(E)**Introduction**

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

This document specifies the characteristics of multi-layer parquet. It is based upon current dimensional standards used in the industry and other characteristics together with functions that 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.

**iTeh STANDARD PREVIEW
(standards.iteh.ai)**

[oSIST prEN 13489:2022](https://standards.iteh.ai/catalog/standards/sist/ef13e4b8-26b3-4817-9214-b6577648ae43/osist-pren-13489-2022)

<https://standards.iteh.ai/catalog/standards/sist/ef13e4b8-26b3-4817-9214-b6577648ae43/osist-pren-13489-2022>

1 Scope

This document specifies the characteristics, suggest requirements and indicates test methods of multi-layer parquet elements for internal use as flooring.

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

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

EN 1534:2020, *Wood flooring and parquet - 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 13647:2019, *Wood flooring and wood panelling and cladding - Determination of geometrical characteristics*

EN 13696, *Wood flooring - Test methods to determine elasticity and resistance to wear and impact resistance*

EN 13756:2019, *Wood flooring – Terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13756:2019 and the following apply.

3.1

multi-layer parquet

wood flooring system of laminated construction with a solid wood top layer of at least 2,5 mm thickness and additional layer(s) as a core/backing constituted of wood based and/or lignified material of more or equal to 75 % in mass

Note 1 to entry: 2-layer and 3-layer parquet are specific variants of multilayer parquet. 2-layer parquet consists of top layer and core layer made of solid wood, wood based panels or combinations of them. Additionally a veneer or a secondary wood based panel is applied as backing in 3-layer parquet

[SOURCE: EN 13756:2019, 4.2.1.6, modified adding Note 1 to entry]

3.2

element

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

[SOURCE: EN 13756:2019, 4.1]

prEN 13489:2021(E)**3.3****top layer**

finished or unfinished upper wood layer, intended to be the visible side when the floor is installed

[SOURCE: EN 13756:2019, 7.12]

3.4**strip**

smallest single item forming the top layer of each element

4 Requirements**4.1 Technical requirements****4.1.1 General**

The element shall be precisely machined, properly sanded and shall have tongue and/or groove on all sides, or integral locking profile. The tongue may be detachable.

The laying instructions shall be supplied or made available by the producer/supplier.

NOTE 1 The cross laminated construction minimizes the possibility of the wood to move (shrink and swell) under changing climatic conditions.

NOTE 2 Optical and slight mechanical changes of surface may occur, but do not limit the usage.

NOTE 3 Low use frequency combined with climate changes may lead to slight creaking effects on floated installed multilayer parquet.

4.1.2 Moisture content

<https://standards.iteh.ai/catalog/standards/sist/ef13e4b8-26b3-4817-9214-b6577648ae43/osist-pr-en-13489-2022>

The moisture content shall be between 5 % and 9 % at the time of the first delivery of the product.

The only suitable method of measurement for moisture content for multi-layer parquet is given in EN 13183-1 (oven-dry method).

NOTE 1 EN 13183-2 (electrical method) can only provide an estimation of the moisture content.

NOTE 2 Depending on the construction of multilayer parquet (f.e. the amount and type of glue, type of core board, etc.), the equilibrium moisture content at the same climate conditions differ to solid wood.

4.1.3 Dimensional characteristics and limit deviations

Dimensional characteristics and permitted deviations of dimensions of elements at all points at the time of the first delivery of the product are shown in Table 5.

Measurement of geometrical characteristics shall be done according to EN 13647.

Table 1 — Dimensional characteristics and limit deviations of element

<i>Characteristics</i>	<i>Dimension characteristic</i>	<i>Limit deviations</i>
Top layer thickness ^a	$\geq 2,5 \text{ mm}$	
Permitted deviation of length		$\pm 0,1 \%$
Permitted deviation of width		$\pm 0,2 \text{ mm}$
<i>Lipping</i> ^a (between elements)		$\leq 0,2 \text{ mm}$
Permitted deviation of squareness		$\leq 0,2 \%$ over the width
<i>Cup</i> (across the element)		$\leq 0,2 \%$ over the width
<i>Spring</i> (across the element)		$\leq 0,1 \%$ over the length

For small elements, squareness should be $\leq 0,1 \%$ and cup $\leq 0,3 \%$.

NOTE Due to process in production, the deviation of declared top layer thickness can be $\pm 0,2 \text{ mm}$ but the thickness never less than 2,5 mm.

4.1.4 Hardness

Values for wood hardness shall be determined by the test defined in EN 1534.

NOTE In EN 1534:2020 Annex A a list of HB of typical wood species is available.

4.1.5 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.

If applicable, characteristics of finishing shall be determined according Table 2:

Table 2 — Test procedures for finishes on multilayer parquet

<i>Characteristics</i>	<i>Reference Test procedure</i> ^a
Resistance to chemical agents	EN 13442
Abrasion resistance*	EN 13696
Impact resistance*	EN 13696
Elasticity*	EN 13696
* film forming finishes according to EN 13442 only	
^a : to comply to local requirements other standardised test methods may apply	

prEN 13489:2021(E)

4.1.6 Bonding quality

The procedures for the evaluation of top layer bonding are defined in prEN 17456:2020. The limit for mean value of top layer delamination after aging treatment 1 is $\leq 10\%$ and for single values is $\leq 25\%$.

4.1.7 Specific site requirements

NOTE See EN 14342.

4.2 Requirements for wood species

4.2.1 Introduction

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

NOTE Wood species exhibit natural colour and grain. Each species and consignment will have varied decorative appearance according to the procurement area.

4.2.2 General rules

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 EN 1310:1997, 4.1). Biodeterioration is measured according to EN 1311.

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

A classification with three appearance classes is specified, designated \circ , Δ and \square .

The material used for the top layer shall be selected hardwood or softwood, fresh and sound without rot, fungus, mould or insect attack and insect damage. Possible exceptions shall be listed in the "free class" specification. 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.

4.2.3 Classification rules for species

4.2.3.1 Rules for the most commonly used species

4.2.3.1.1 *Quercus* spp. (oak)

Rules for oak are given in Table 3.

Table 3 — Classification for *Quercus* spp. (oak)

Face of the element			
Features	Class		
	○	Δ	◻
Sound sapwood	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.
Knots ^a Sound and intergrown Unsound knots	Permitted if: diameter ≤ 3 mm diameter ≤ 1 mm if not grouped together ^b	Permitted if: diameter ≤ 8 mm diameter ≤ 2 mm	
Checks	Not permitted	Permitted up to 20 mm in length per strip	
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	
Medullary ray	Permitted	Permitted	
Biodeterioration	Not permitted	Not permitted	
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 parquet flooring.			
<p>^a Cracks in knots and knot holes greater than 3 mm shall be filled.</p> <p>^b Knots are grouped together if the distance separating them, measured from edge to edge, does not exceed 30 mm.</p>			

4.2.3.1.2 *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 4.