

# Wood flooring — Mosaic parquet elements

The European Standard EN 13488:2002 has the status of a  
British Standard

ICS 79.080

## National foreword

This British Standard is the official English language version of EN 13488:2002.

The UK participation in its preparation was entrusted to Technical Committee B/543, Round and sawn timber, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

### Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

This British Standard, having been prepared under the direction of the Building and Civil Engineering Sector Policy and Strategy Committee, was published under the authority of the Standards Policy and Strategy Committee on 7 January 2003

### Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 23 and a back cover.

The BSI copyright date displayed in this document indicates when the document was last issued.

### Amendments issued since publication

Amd. No.	Date	Comments

ICS 79.080

English version

## Wood flooring - Mosaic parquet elements

Planchers et parquets en bois - Eléments de parquet  
mosaïque

Holzfußböden - Mozaikparkettelemente

This European Standard was approved by CEN on 4 November 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.

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.



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

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

## Contents

	page
Foreword.....	3
Introduction .....	4
1 Scope .....	5
2 Normative references .....	5
3 Terms and definitions.....	6
4 Specific product requirements .....	6
4.1 Wood species and patterns .....	6
4.2 Appearance.....	7
4.2.1 General rules .....	7
4.2.2 Rules for the most commonly used species.....	7
4.2.3 <i>Fagus sylvatica</i> (European beech) and <i>Fraxinus excelsior</i> (European ash) .....	8
4.2.4 Free class.....	8
4.2.5 Natural colours.....	8
4.3 Moisture content .....	8
4.4 Geometrical characteristics.....	9
4.4.1 General.....	9
4.4.2 Mosaic parquet finger.....	9
4.4.3 Unfinished mosaic parquet panel .....	11
4.4.4 Finished mosaic parquet panel .....	11
4.4.5 Other mosaic parquet laying units.....	11
4.4.6 Machining .....	11
4.5 Technical specifications .....	11
4.5.1 Technical characteristics required when in service.....	11
4.5.2 Specific site requirements .....	11
4.5.3 Appearance.....	12
4.5.4 Renovation and repair .....	12
5 Marking .....	12
Annex A (informative) Botanical and trade names of the most commonly used species for wood flooring (hardwood and softwood species) .....	13
Annex B (informative) Other mosaic parquet laying units .....	20
Annex C (normative) Principles for the classification of the free class .....	22
Bibliography .....	23

## Foreword

This document (EN 13488:2002) 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 the annexes A and B are informative. Annex C 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.

## **Introduction**

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

This standard specifies the characteristics of mosaic parquet. It is based upon current dimensional standards used in the industry together with functions which have been verified by test.

A large amount of knowledge exists about mosaic 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.

## 1 Scope

This European Standard specifies the appearance classes, dimensions and other characteristics of solid wood mosaic parquet fingers, component squares, mosaic parquet laying units and mosaic parquet panels, finished or unfinished, for internal use as flooring.

## 2 Normative references

This European Standard incorporates by dated or undated references, 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 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 structure content.*

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

EN 844-7:1997, *Round and sawn timber – Terminology - Part 7: Terms relating to anatomical structure of 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 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 13183-2, *Moisture content of a piece of sawn timber - Part 2: Estimation by electrical resistance method.*

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

EN 13756:2002, *Wood flooring – Terminology.*

### 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions in EN 844-1:1995, EN 844-3:1995, EN 844-4:1997, EN 844-6:1997, EN 844-7:1997, 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

##### **mosaic parquet finger**

element of solid sawn wood of small dimensions and rectangular shape, having flat edges

[EN 13756:2002]

#### 3.2

##### **component square**

mosaic parquet fingers of same dimensions, assembled edge to edge to form a square

NOTE The size of the square is equal to the length of the mosaic parquet fingers.

#### 3.3

##### **mosaic parquet laying unit**

pre-assembled laying unit made up from mosaic parquet fingers which are assembled in a certain way in order to form a repeatable pattern, for example squares or other designs

#### 3.4

##### **mosaic parquet panel**

pre-assembled laying unit made up from component squares of the same dimensions placed edge to edge, laid in a chequered pattern

### 4 Specific product requirements

#### 4.1 Wood species and patterns

Species shall be specified.

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

Unless otherwise agreed, mosaic parquet panels shall be assembled from component squares as shown in Figure 1. Some other patterns are shown in Annex B.

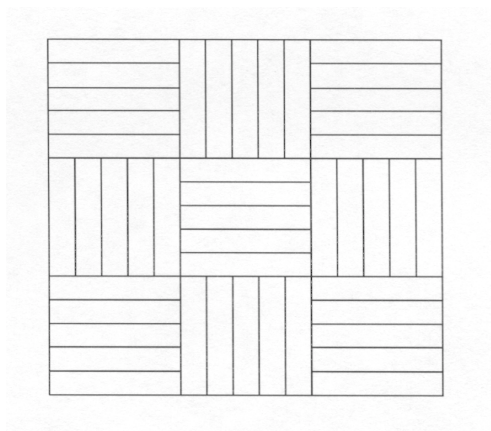


Figure 1 — Mosaic parquet panel with component squares



## 4.2 Appearance

### 4.2.1 General rules

Tables 1 to 3 define the classification relating to appearance rules for the face and for the non-visible parts (back and edges) of a mosaic parquet finger of the most commonly used species for mosaic 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 ○, Δ and □.

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

The face shall include all the visible surface of the element.

The face shall be free of bore holes and the wood shall be sound. Growth rings as well as medullary rays are permitted.

### 4.2.2 Rules for the most commonly used species

#### 4.2.2.1 *Quercus* spp. (oak) and tropical hardwoods

Rules for oak and tropical hardwoods are given in Table 1.

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

Face of the element			
Features	Class		
	○	Δ	□
<b>Sound sapwood</b>	Not permitted	Permitted	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>	Permitted if: diameter ≤ 2 mm	Permitted if: diameter ≤ 2 mm	
<b>Sound</b>	diameter ≤ 2 mm	diameter ≤ 2 mm	
<b>Black knots</b>	diameter ≤ 1 mm	diameter ≤ 1 mm	
<b>Checks</b>	Not permitted	Not permitted	
<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 <sup>a</sup>	
<b>Biodeterioration</b>	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 parquet flooring.			
<sup>a</sup> Brown oak.			

#### 4.2.3 *Fagus sylvatica* (European beech) and *Fraxinus excelsior* (European ash)

Rules for European beech and European ash are as given in Table 1, with specific requirements for European beech in Table 2 and European ash in Table 3.

**Table 2 — Specific classification for *Fagus sylvatica* (European beech)**

Face of the element			
Features	Class		
	○	Δ	□
Sound sapwood	Not applicable	Not applicable	Not applicable
Sound red heart	Not permitted	Permitted	Permitted

**Table 3 — Specific classification for *Fraxinus excelsior* (European ash)**

Face of the element			
Features	Class		
	○	Δ	□
Sound sapwood	Not applicable	Not applicable	Not applicable
Sound blackheart	Not permitted	Permitted	Permitted

#### 4.2.4 Free class

The free class covers any species which may be used for parquet and for which hardness HB has a minimum mean value of 10 N/mm<sup>2</sup>. Hardness shall be measured according to EN 1534. The free class covers any classification which the producer wishes to offer or which is requested by the buyer. The proportions or limits of features shall be specifically indicated in the producer's literature/data sheets, in conformity with Annex C and stated according to Table C.1.

NOTE 10 N/mm<sup>2</sup>: approximately 1 kgf/mm<sup>2</sup>

#### 4.2.5 Natural colours

Timber colours are mainly dependent on the wood species.

NOTE All timber varies in colour when exposed to light over a period of time.

### 4.3 Moisture content

The moisture content of unfinished mosaic parquet fingers shall be between 7 % and 11 % for all wood species at the time of the first delivery. It shall be between 6 % and 10 % for finished mosaic parquet fingers.

The moisture content shall be measured with an electric moisture meter in accordance with EN 13183-2. In case of dispute, the moisture content shall be determined by oven-drying test pieces taken from the centre of elements in accordance with EN 13183-1.

## 4.4 Geometrical characteristics

### 4.4.1 General

All dimensions are given at a reference moisture content of 9 % except dimensions for chestnut and maritime pine which are given at a reference moisture content of 10 %.

Unless there is evidence to the contrary, it shall be assumed that the thickness and width of a piece of timber increase by 0,25 % for every 1 % of moisture content above the reference moisture content, and decrease by 0,25 % for every 1 % of moisture content below the reference moisture content.

The methods of measurement of geometrical characteristics are given in EN 13647.

### 4.4.2 Mosaic parquet finger

#### 4.4.2.1 Unfinished mosaic parquet finger

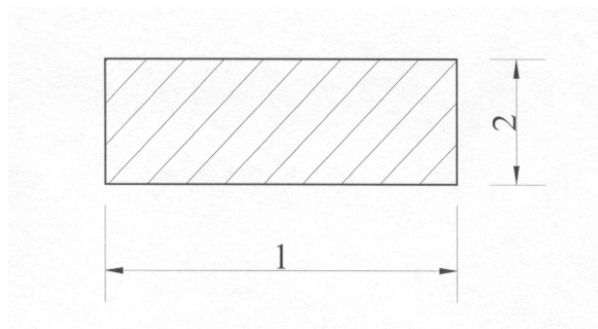
The dimensions of an unfinished mosaic parquet finger shall be as shown in Table 4.

**Table 4 — Dimensions**

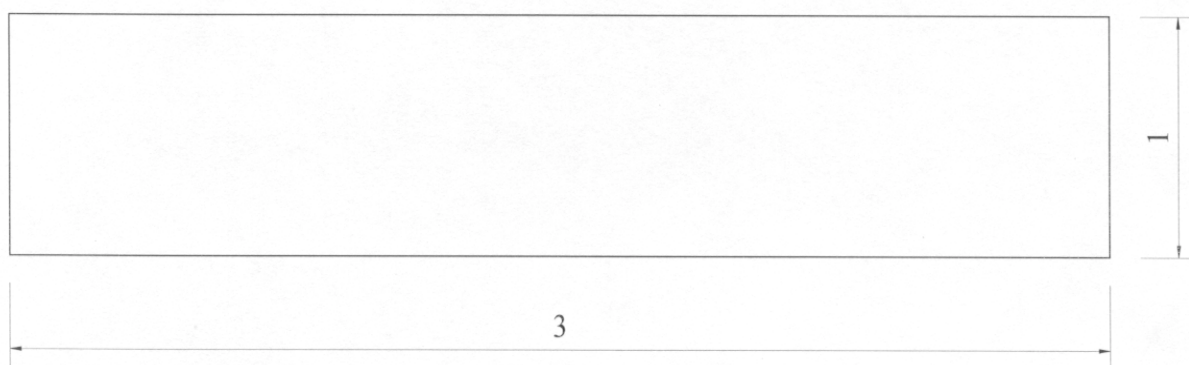
Dimensions in millimetres

Thickness	Width	Length <sup>a</sup>
8	≤ 35	115 to 165
<sup>a</sup> For specific patterns, the length can be < 115 mm (for example see Figure B.4).		

The dimensions given refer to Figure 2.



a) Cross section



b) Face

**Key**

- 1 Width
- 2 Thickness
- 3 Length

**Figure 2 — Cross section and face of a mosaic parquet finger**

The permitted deviations of dimensions are given in Table 5.

**Table 5 — Limit deviations of dimensions**

Dimensions in millimetres

Thickness	Width	Length
$\pm 0,3$	$\pm 0,1$	$\pm 0,2$

**4.4.2.2 Finished mosaic parquet finger**

Finished mosaic parquet fingers shall have a thickness of  $(7,5 \pm 0,3)$  mm. The length and width shall be as specified in Table 4.

#### 4.4.3 Unfinished mosaic parquet panel

The width and the length are determined by the dimensions of the component squares.

The permitted deviations for the unfinished mosaic parquet panels shall be:

- for the width and for the length: (+ 0,30 / - 0,15) %.

#### 4.4.4 Finished mosaic parquet panel

The width and the length are determined by the dimensions of the component squares.

The permitted deviations for the panels shall be:

- for the width and for the length:  $\pm 0,1$  % ;
- for the rectangularity measured over the width:  $\pm 0,2$  %.

The component squares may be assembled one with another by tongue and groove profile.

The thickness above the groove shall be at least 3,0 mm.

#### 4.4.5 Other mosaic parquet laying units

For other mosaic parquet laying units, see Annex B.

The width and the length are determined by the dimensions of the mosaic parquet fingers.

#### 4.4.6 Machining

All pieces shall be accurately machined and shall be smoothly finished on the face.

Slightly torn grain or similar feature is admissible if it can readily be removed by the ordinary process of sanding the floor after it has been laid in preparation for finishing.

The mosaic finger shall be parallel and rectangular in the length and in the width.

Finished mosaic parquet fingers shall be appropriately sanded and coated. Mosaic parquet laying units shall have tongue and groove at the edges.

### 4.5 Technical specifications

#### 4.5.1 Technical characteristics required when in service

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

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

NOTE The elements specified in this standard will be part of a total floor construction and can only meet the technical demands on the parquet when in service if specified and installed according to the laying instructions or usual specifications.

#### 4.5.2 Specific site requirements

NOTE See prEN 14342.

### **4.5.3 Appearance**

#### **4.5.3.1 General**

This standard specifies elements manufactured from a natural material.

#### **4.5.3.2 Species**

Species shall be specified. A list of the most commonly used species is given in Annex A.

For appearance rules and natural colours, refer to 4.2.

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

#### **4.5.3.3 Classification**

The class shall be specified.

The decorative appearance of each species will vary with class.

**NOTE** It should be noted that some classes allow many natural characteristics. This fact should be taken into account when specifying decorative appearance.

### **4.5.4 Renovation and repair**

Mosaic parquet shall be capable of undergoing renovation at least twice, if not subject to excessive wear and tear or if renovation does not remove an excessive amount of wood.

The construction shall be such that one or more fingers shall be capable of being replaced.

## **5 Marking**

Each package defined by the manufacturer at the time of the first delivery shall be clearly identified as follows:

- the type of the product (mosaic parquet fingers, mosaic parquet laying units, component squares or mosaic parquet panels) and if applicable its trade name;
- the designation of the appearance class (○, Δ, □ or appropriate designation for free class(es));
- the type of finishing;
- the thickness, width and length of the mosaic parquet laying unit, in millimetres;
- the number of mosaic parquet fingers per component square, if applicable;
- the number of mosaic parquet laying units;
- the total surface area in square metres;
- the trade name of the species;
- patterns, if applicable;
- if required, the durability class (EN 460) or preservative treatment (EN 351-1) against biodeterioration;
- the support on the face or on the back, if appropriate;
- reference to this standard, EN 13488.

## Annex A (informative)

### Botanical and trade names of the most commonly used species for wood flooring (hardwood and softwood species)

Table A.1 contains the botanical and trade names of the most commonly used species for wood flooring in Europe (for more information, refer to prEN 13556).

**Table A.1 — Species for wood flooring**

Botanical species Espèce botanique Botanische Art	Code	Source	Standard name	Nom standard	Handelsüblicher Name
<i>Abies alba</i> Mill	ABAL	EU	silver fir ; whitewood	sapin blanc	Tanne ; Weisstanne
<i>Abies</i> spp.	-	-	fir	sapin	Tanne
<i>Acer campestre</i> L.	ACCM	EU	field maple	érable champêtre	Feldahorn
<i>Acer saccharum</i> Marsh. (principally)	ACSC	AM (N)	rock maple	érable d'Amérique	Zuckerahorn
<i>Acer pseudoplatanus</i> L.	ACPS	EU	sycamore	érable sycomore	Bergahorn
<i>Acer</i> spp.	-	-	maple	érable	Ahorn
<i>Aextoxicon punctatum</i>	-	-	-	olivillo	-
<i>Afzelia</i> spp., principally <i>A. bipindensis</i> Harms <i>A. pachyloba</i> Harms	AFXX	AF	afzelia	doussié	Afzelia
<i>Alnus glutinosa</i> (L.) Gaertn.	ALGL	EU	common alder	aune glutineux	Schwarzerle
<i>Alnus incana</i> (L.) Moench	ALIN	EU	grey alder	aune blanc	Grauerle
<i>Androstachys johnsonii</i>	-	-	-	mecrussé	Mecrusse
<i>Anisoptera</i> spp.	ANXX	AS	mersawa	mersawa	Mersawa

EN 13488:2002 (E)

Table A.1 — Species for wood flooring (continued)

Botanical species Espèce botanique Botanische Art	Code	Source	Standard name	Nom standard	Handelsüblicher Name
<i>Baillonella toxisperma</i> Pierre	BLTX	AF	moabi	moabi	Moabi
<i>Beilschmiedia</i> spp.	-	AU	tawa	kanda	Kanda
<i>Betula pendula</i> Roth <i>B. pubescens</i> Ehrh	BTXX	EU	European birch	bouleau d'Europe	Birke, Gemeine
<i>Bowdichia nitida</i> Benth.	BWNT	AM(S)	sucupira	sucupira	Sucupira
<i>Brachylaena hutchinsii</i> Hutch.	BYHT	AF	muhuhu	muhuhu	Muhuhu
<i>Brachystegia</i> spp.	BRXX	AF	okwen	naga	Naga
<i>Calophyllum</i> spp.	CLXX	AS	bintangor	bintangor	-
<i>Castanea sativa</i> Mill.	CTST	EU	sweet chestnut	châtaignier	Edelkastanie
<i>Celtis</i> spp.	CJXX	AF	African celtis	diania ; ohia	Ohia
<i>Copaifera salikounda</i> Heckel	CFSL	AF	etimoé	etimoé	Etimoé
<i>Dacryodes igaganga</i>	-	-	-	igaganga	-
<i>Dacryodes pubescens</i>	-	-	-	safoukala	Safoukala
<i>Dacryodes buettneri</i> H.J.Lam	DABT	AF	ozigo	ozigo	Ozigo
<i>Dicorynia guianensis</i> Amsh.	DIGN	AM (S)	basralocus	angélique	Angelique
<i>Dipterocarpus</i> spp.	DPXX	AS	keruing	keruing	Keruing
<i>Entandrophragma angolense</i> (Welw.) C. DC.	ENAN	AF	gedu nohor	tiana	Tiana Mahagoni
<i>Entandrophragma cylindricum</i> (Sprague) Sprague	ENCY	AF	sapele	sapelli	Sapelli Mahagoni
<i>Entandrophragma utile</i> (Dawe & Sprague) Sprague	ENUT	AF	utile	sipo	Sipo Mahagoni
<i>Erythrophleum ivorense</i> A. Chev <i>E. suaveolens</i> (Guill. & Perr.) Brenan	EYXX	AF	missanda	tali	Tali



Table A.1 — Species for wood flooring (*continued*)

Botanical species Espèce botanique Botanische Art	Code	Source	Standard name	Nom standard	Handelsüblicher Name
<i>Eucalyptus delegatensis</i> R. T. Bak. <i>E. obliqua</i> L'Hérit <i>E. regnans</i> F. Muell.	EUXX	AP	"Tasmanian oak" †	eucalyptus de Tasmanie	Tasmanian "oak"
<i>Fagus sylvatica</i> L.	FASY	EU	European beech	hêtre	Buche
<i>Fraxinus excelsior</i> L.	FXEX	EU	European ash	frêne commun	Esche
<i>Gambeya africana</i> Pierre <i>G. lacourtiana</i> Aubr. & Pellegr. <i>G. subnuda</i> Pierre	GAXX	AF	longhi	longhi	Aningré
<i>Gilbertiodendron dewevrei</i> J. Léon.	GBDW	AF	limbali	limbali	Limbali
<i>Guibourtia arnoldiana</i> (De Wild. & Th. Dur.) J. Léon.	GUAR	AF	mutenye	mutényé	Mutenye
<i>Guibourtia ehie</i> (A. Chev.) J. Léon.	GUEH	AF	ovangkol	ovangkol	Ovenkol
<i>Heritiera</i> spp.	HEXM	AS	mengkulang	mengkulang	Mengkulang
<i>Hymenolobium</i> spp.	-	-	-	sapupira amarella	-
<i>Intsia bijuga</i> (Colebr.) O. Ktze. <i>I. palembanica</i> Miq.	INXX	AS	merbau	merbau	Merbau
<i>Juglans nigra</i> L.	JGNG	AM(N)	American walnut	noyer noir d'Amérique	Schwarznußbaum
<i>Juglans regia</i> L.	JGRG	EU	European walnut	noyer	Nußbaum
<i>Larix decidua</i> Mill.	LADC	EU	European larch	mélèze d'Europe	Europäische Lärche
<i>Larix</i> spp.	-	-	larch	mélèze	Lärche
<i>Letestua durissima</i>	-	-	-	congтали	-
<i>Lophira alata</i> Banks ex Gaertn. f.	LOAL	AF	ekki	azobé	Azobé

EN 13488:2002 (E)

Table A.1 — Species for wood flooring (*continued*)

Botanical species Espèce botanique Botanische Art	Code	Source	Standard name	Nom standard	Handelsüblicher Name
<i>Manilkara bidentata</i> (D.C.) Chev. <i>M. huberi</i> Ducke	MNXX	AM(S)	massaranduba	maçaranduba	Massaranduba
<i>Mansonia altissima</i> A. Chev.	MAAL	AF	mansonia	mansonia	Mansonia
<i>Milicia excelsa</i> (Welw.) C.C. Berg <i>M. regia</i> (A. Chev.) C.C. Berg	MIXX	AF	iroko	iroko	Iroko
<i>Millettia laurentii</i> De Wild.	MTLR	AF	wengé	wengé	Wengé
<i>Millettia stuhlmannii</i> Taub.	MTST	AF	panga panga	wengé	Panga Panga
<i>Morus mesozygia</i> <i>M. lactea</i>	-	-	-	difou	-
<i>Nauclea diderrichii</i> (De Wild. & Th. Durr.) Merr.	NADD	AF	opepe	ilinga	Bilinga
<i>Nesogordonia papaverifera</i> ( <i>Cistanthera papaverifera</i> ) (A. Chev.) Capuron	NEPP	AF	danta	kotibé	Kotibé
<i>Ocotea rubra</i> Mez	OCRB	AM(S)	red louro	louro vermelho	Louro vermelho
<i>Palaquium</i> spp.	PPXX	AS	nyatoh	nyatoh	Nyatoh
<i>Paratecoma peroba</i> (Record) Kuhlmann	PAPR	AM(S)	white peroba	peroba de campos	Peroba da campos
<i>Peltogyne</i> spp.	PGXX	AM(S)	purpleheart	amarante	Amarant
<i>Pericopsis elata</i> (Harms) van Meeuwen	PKEL	AF	afroformosia	afroformosia	Afroformosia
<i>Picea abies</i> (L) Karst.	PCAB	EU	whitewood; Norway spruce	épicéa	Fichte

Table A.1 — Species for wood flooring (continued)

Botanical species Espèce botanique Botanische Art	Code	Source	Standard name	Nom standard	Handelsüblicher Name
<i>Picea sitchensis</i> (Bong.) Carr.	PCST	AM(N)*	Sitka spruce	épicea de Sitka	Sitka-Fichte
<i>Pinus caribaea</i> Morelet	PNCR	AM(C)	Caribbean pitch pine	pitchpin	Pitch pine ; Pechkiefer
<i>Pinus pinaster</i> Alt.	PNPN	EU	maritime pine	pin maritime	Seestrandkiefer
<i>Pinus sylvestris</i> L.	PNSY	EU	redwood ; Scots pine	pin sylvestre	Kiefer
<i>Piptadeniastrum africanum</i> (Hook. f.) Brenan	PIAF	AF	dahoma	dabéma	Dabema
<i>Pometia pinnata</i> Forst. <i>P. tomentosa</i>	PMPN	AS;AP	taun	kasai	Kasai
<i>Prunus avium</i> L.	PRAV	EU	European cherry	merisier	Kirschbaum;Vogelkirsche
<i>Prunus serotina</i> Ehrh.	PRSR	AM(N)	American cherry	merisier d'Amérique	Amerikanische Kirsche
<i>Pseudotsuga menziesii</i> (Mirb.) Franco	PSMN	AM(N)*	"Douglas fir" †	Douglas	Douglasie
<i>Pterocarpus angolensis</i> DC.	PTAN	AF	muninga	muninga	Muninga
<i>Pterocarpus soyauxii</i> Taub. <i>P. osun</i> Craib	PTXX	AF	African padauk	padouk	Afrikanisches Padouk
<i>Qualea</i> spp.	-	-	-	Gronfolo rose	-
<i>Quercus petraea</i> (Matt.) Liebl. <i>Q. robur</i> L.	QCXE	EU	European oak	chêne blanc européen	Eiche
<i>Quercus</i> spp. including <i>Q. alba</i> L. and other spp.	QCXA	AM(N)	American white oak	chêne blanc d'Amérique	Weißeiche
<i>Quercus</i> spp. including <i>Q. rubra</i> L.	QCXR	AM(N)	American red oak	chêne rouge d'Amérique	Roteiche
<i>Shorea</i> spp. principally <i>S. atrinervosa</i> <i>S. ciliata</i>	SHBL	AS	balau	balau	Balau

Table A.1 — Species for wood flooring (continued)

Botanical species Espèce botanique Botanische Art	Code	Source	Standard name	Nom standard	Handelsüblicher Name
<i>Shorea</i> spp. principally <i>S. guiso</i> (Blanco) Bl. <i>S. kunstleri</i> King	SHRB	AS	red balau	red balau	Red Balau
<i>Shorea</i> spp. principally <i>S. bracteolata</i> <i>S. hypochra</i> <i>S. floribunda</i> <i>S. sericiflora</i>	SHWM	AS	white meranti	meranti blanc	Weisses Meranti
<i>Shorea</i> spp. principally <i>S. curtini</i> <i>S. pauciflora</i>	SHDR	AS	dark red meranti	dark red meranti	Dunkelrotes Meranti
<i>Sindoropsis letestui</i> J. Léon.	SPLT	AF	ghéombi	ghéombi	Ghéombi
<i>Staudtia stipitata</i> Warb. <i>S. kamerunensis</i>	SSST	AF	niové	niové	Niove
<i>Sterculia rhinopetala</i> K Schum.	STRH	AF	brown sterculia	lotofa	Lotofa
<i>Swietenia macrophylla</i> King	SWMC	AM(C&S)	American mahogany	mahogany	Amerikanisches Mahagoni
<i>Swietenia mahagoni</i> Jacq.	SWMH	AM(C)	American mahogany	mahogany	Echtes Mahagoni
<i>Tabebuia</i> spp.	AM(S)	-	-	ipé	-
<i>Tectona grandis</i> L. f.	TEGR	AS	teak	teck	Teak
<i>Testulea gabonensis</i> Pellegr.	TZGB	AF	izombé	izombé	Izombé
<i>Tieghemella africana</i> Pierre	TGAF	AF	makoré	makoré	Douka
<i>Tieghemella heckelii</i> Pierre ex A. Chev.	TGHC	AF	makoré	makoré	Makoré
<i>Ulmus procera</i> Salisb.	ULPR	EU	English elm	orme champêtre	Englische Ulme
<i>Ulmus x hollandica</i> Mill.	ULXH	EU	Dutch elm	orme de Hollande	Holländische Ulme

Table A.1 — Species for wood flooring (*concluded*)

Botanical species Espèce botanique Botanische Art	Code	Source	Standard name	Nom standard	Handelsüblicher Name
<i>Vouacapoua americana</i> <i>V. pallidior</i> <i>V. macropetala</i>	-	-	-	wacapou	-

## Annex B (informative)

### Other mosaic parquet laying units

This annex gives non-exhaustive examples of patterns.

#### B.1 Bond

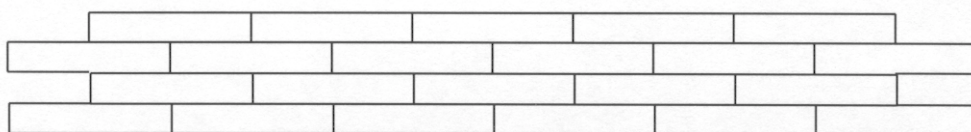


Figure B.1 — Bond with one mosaic finger

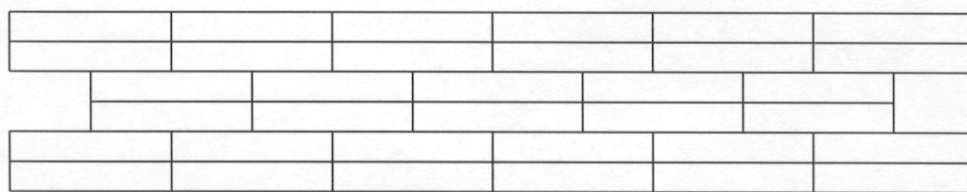


Figure B.2 — Bond with two mosaic fingers

The abutting joints can be in the middle or staggered.

#### B.2 Herringbone

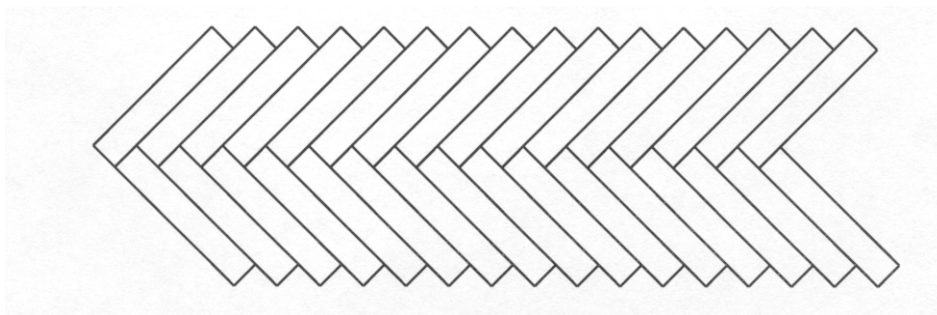


Figure B.3 — Simple herringbone

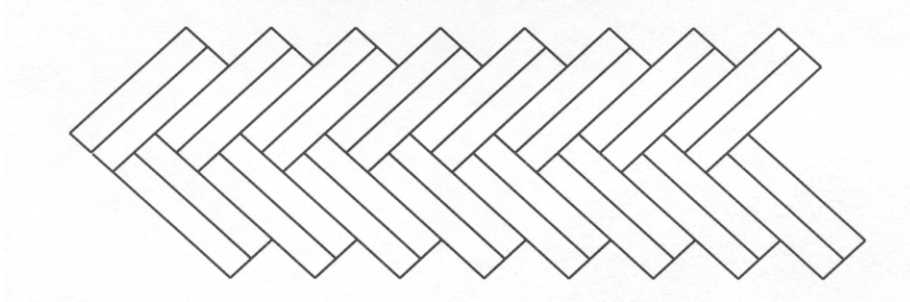


Figure B.4 — Double herringbone

**B.3 Haddon hall pattern**

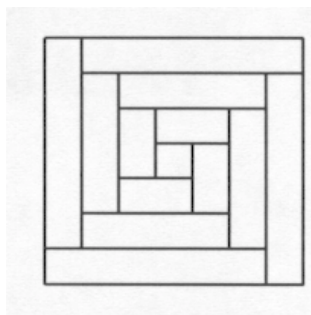


Figure B.3 — Haddon hall pattern

## Annex C (normative)

### Principles for the classification of the free class

The free class is an appearance class with a particular selection offered by the producer or on request by the buyer.

The free class shall be described with all the features given in Table C.1 and their requirements. The features shall be measured according to EN 1310.

The same species may have several different values for each feature to have several selections.

**Table C.1 — Classification for hardwood and softwood species**

Face of the element	
Feature	Limit
Sound sapwood	
Knots (sound, black)	
Checks	
Bark pockets	
Resin pockets	
Lightning shake	
Slope of grain	
Colour variation	
Sound red heart	
Sound blackheart	
Biodeterioration	
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.	



## Bibliography

- [1] prEN 14342 *Wood flooring – Characteristics, evaluation of conformity and marking.*
- [2] prEN 13556 *Round and sawn timber – Nomenclature of timbers used in Europe.*
- [3] EN 351-1, *Durability of wood and wood-based products – Preservative-treated solid wood – Part 1: Classification of preservative penetration and retention.*
- [4] EN 460, *Durability of wood and wood-based products - Natural durability of solid wood - Guide to the durability requirements for wood to be used in hazard classes.*

---

---

# BSI — British Standards Institution

BSI is the independent national body responsible for preparing British Standards. It presents the UK view on standards in Europe and at the international level. It is incorporated by Royal Charter.

## Revisions

British Standards are updated by amendment or revision. Users of British Standards should make sure that they possess the latest amendments or editions.

It is the constant aim of BSI to improve the quality of our products and services. We would be grateful if anyone finding an inaccuracy or ambiguity while using this British Standard would inform the Secretary of the technical committee responsible, the identity of which can be found on the inside front cover. Tel: +44 (0)20 8996 9000. Fax: +44 (0)20 8996 7400.

BSI offers members an individual updating service called PLUS which ensures that subscribers automatically receive the latest editions of standards.

## Buying standards

Orders for all BSI, international and foreign standards publications should be addressed to Customer Services. Tel: +44 (0)20 8996 9001. Fax: +44 (0)20 8996 7001. Email: [orders@bsi-global.com](mailto:orders@bsi-global.com). Standards are also available from the BSI website at <http://www.bsi-global.com>.

In response to orders for international standards, it is BSI policy to supply the BSI implementation of those that have been published as British Standards, unless otherwise requested.

## Information on standards

BSI provides a wide range of information on national, European and international standards through its Library and its Technical Help to Exporters Service. Various BSI electronic information services are also available which give details on all its products and services. Contact the Information Centre. Tel: +44 (0)20 8996 7111. Fax: +44 (0)20 8996 7048. Email: [info@bsi-global.com](mailto:info@bsi-global.com).

Subscribing members of BSI are kept up to date with standards developments and receive substantial discounts on the purchase price of standards. For details of these and other benefits contact Membership Administration. Tel: +44 (0)20 8996 7002. Fax: +44 (0)20 8996 7001. Email: [membership@bsi-global.com](mailto:membership@bsi-global.com).

Information regarding online access to British Standards via British Standards Online can be found at <http://www.bsi-global.com/bsonline>.

Further information about BSI is available on the BSI website at <http://www.bsi-global.com>.

## Copyright

Copyright subsists in all BSI publications. BSI also holds the copyright, in the UK, of the publications of the international standardization bodies. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from BSI.

This does not preclude the free use, in the course of implementing the standard, of necessary details such as symbols, and size, type or grade designations. If these details are to be used for any other purpose than implementation then the prior written permission of BSI must be obtained.

Details and advice can be obtained from the Copyright & Licensing Manager. Tel: +44 (0)20 8996 7070. Fax: +44 (0)20 8996 7553. Email: [copyright@bsi-global.com](mailto:copyright@bsi-global.com).