

Timber in joinery — General classification of timber quality

The European Standard EN 942:1996 has the status of a
British Standard

ICS 79.040

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by Technical Committee B/543, Round and sawn timber, to Subcommittee B/543/5, Joinery — general, upon which the following bodies were represented:

- Association of Building Engineers
- British Wood Preserving and Damp-proofing Association
- British Woodworking Federation
- Department of the Environment
- Department of the Environment (Building Research Establishment)
- Guild of Architectural Ironmongers
- Institute of Clerks of Works of Great Britain Inc.
- Joinery Managers' Association Ltd.
- LHC Building Components and Services
- Nordic Timber Council (UK)
- Royal Institute of British Architects
- Timber Research and Development Association
- Timber Trade Federation
- Wood Panel Industries Federation

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National foreword

This British Standard has been prepared by Subcommittee B/543/5 and is the English language version of EN 942:1996 *Timber in joinery — General classification of timber quality* published by the European Committee for Standardization (CEN).

It supersedes BS 1186-1:1991 which is withdrawn.

BS 1186-1:1991 contained tables giving information on some species and their suitability for use in joinery. These tables are included for information in National annex NA.

Cross-references

Publication referred to	Corresponding British Standard
EN 350-2:1994	BS EN 350 <i>Durability of wood and wood-based products. Natural durability of solid wood</i> Part 2:1994 <i>Guide to natural durability and treatability of selected wood species of importance in Europe</i>
EN 351-1:1995	BS EN 351 <i>Durability of wood and wood-based products. Preservative-treated solid wood</i> Part 1:1996 <i>Classification of preservative penetration and retention</i>
EN 460:1994	BS EN 460:1994 <i>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</i>
EN 844-3:1995	BS EN 844 <i>Round and sawn timber. Terminology</i> Part 3:1995 <i>General terms relating to sawn timber</i>

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 18, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

ICS 79.040

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English version

Timber in joinery — General classification of timber quality

Bois dans les menuiseries — Classification
générale de la qualité du bois

Holz für Tischlerarbeiten — Allgemeine
Klassifizierung der Holzqualität

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Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 175, Round and sawn timber, of which the secretariat 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 September 1996, and conflicting national standards shall be withdrawn at the latest by September 1996.

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

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Introduction

The classification method given in this standard is applicable to timber after it has been incorporated into complete items of joinery or into individual joinery parts. The method is not appropriate for the purchase specification of timber. Conversely, commercial grades, that is the classification of timber as a raw material, are not appropriate for referencing in joinery specifications.

1 Scope

This standard specifies the method to be used to determine the characteristics and classify the appearance quality of timber in joinery.

This standard applies to all complete items of joinery such as doors, windows and staircases, or to individual joinery parts. It includes solid, finger-jointed, edge-jointed and laminated joinery.

Matters relating to the influence of timber characteristics on strength and durability are not covered in this standard. Matters specific to windows and doors are covered in the relevant product standards.

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.

EN 350-2, *Durability of wood and wood based products — Natural durability of wood — Part 2: Natural durability and treatability of selected wood species of importance in Europe.*

EN 351-1, *Durability of wood and wood-based products — Preservative-treated solid wood — Part 1: Classification of preservative penetration and retention.*

EN 460, *Durability of wood and derived materials — Natural durability of wood — Durability classes and hazard classes.*

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

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

3 Definitions

For the purposes of this standard the definitions given in EN 844-3 apply, together with the following.

3.1

concealed face

face of a joinery part which, after installation of the joinery is completed, is permanently concealed by other parts or other elements of construction, including materials such as plastic or metal

3.2

visible face

face of a joinery part which, after installation of the joinery is completed, is not permanently concealed

NOTE 1 Decoration, even with an opaque finish, does not constitute concealment.

NOTE 2 Faces of moving parts (e.g. window casements or door leaves) which are visible when open are classified as visible faces.

4 Basic principles

4.1 Appearance classes

For the purposes of this standard, the appearance of timber in joinery shall be classified in accordance with Table 1.

4.2 Finger jointing, edge jointing and laminating

Unless otherwise agreed, finger jointing, edge jointing and laminating shall be permitted in classes J10, J30, J40 and J50. Unless otherwise agreed, they shall not be permitted in class J2.

4.3 Moisture content

The average moisture content (percent) of timber in joinery at the time of handover, shall be in accordance with the relevant product standard.

NOTE 1 Handover relates to the time the joinery is supplied by the manufacturer to the first purchasers, and by subsequent suppliers to subsequent purchasers.

NOTE 2 Where no relevant product standard exists, the guidance on moisture content given in Annex B (informative) may be used.

4.4 Species

Timber in joinery shall be suitable for its intended purpose.

NOTE 1 Guidance on the specification of timber in joinery is given in Annex C (informative) and on the selection of timber species in Annex D (informative).

NOTE 2 Durability, a factor influencing the appearance of timber, is covered by EN 350-2, EN 460 and EN 351-1.

NOTE 3 It should be noted that colour variations occur within species as well as between sapwood and heartwood. Any special requirements for colour matching should be by prior agreement.

NOTE 4 If two or more species are used in the same unit or sub-assembly, they should be selected to avoid differential movement resulting in distortion.

5 Classification of features

5.1 General

Table 1 shows where and to what extent the presence of the following features shall be permitted at the time of handover, for the various classes of timber.

knots
shakes
resin pockets
bark pockets
discoloured sapwood
exposed pith
ambrosia beetle damage

Where remedial work on the part of the manufacturer is permitted in Table 1, it shall be carried out in accordance with clause 6.

NOTE See also the guidance given in C.2.

5.2 Knots and knot clusters

5.2.1 Types

Knots and knot clusters shall be limited in size and distribution, according to 5.2.3 and 5.2.4.

Loose or unsound knots shall not be present except on concealed faces. When they occur on a visible face, the timber shall be made good in accordance with clause 6.

Arris knots shall comply with the requirements of both faces on which they appear.

NOTE Arris knots may be impossible to make good unless extremely sound.

5.2.2 Measurement

The measurement of knots shall be carried out in accordance with the “general method” given in EN 1310.

Table 1 — Timber features according to class and face

Characteristics		Visible faces					Concealed faces
		Class J2	Class J10	Class J30	Class J40	Class J50	
Knots (see 5.2.3)		max. 2 mm	30 % max. 10 mm	30 % max. 30 mm	40 % max. 40 mm	50 % max. 50 mm	For concealed faces, all listed features are allowed provided they do not interfere either with the mechanical characteristics of the products or with their implementation
Shakes	max. width	Not permitted	0,5 mm		1,5 mm if made good		
	max. depth (see note 1)		1/8 thickness of piece		1/4 thickness of piece		
	max. individual lengths		100 mm	200 mm	300 mm		
	max. aggregate length on each face		10 %	25 %	50 %		
Resin pockets and bark pockets		Not permitted	Permitted up to 75 mm in length if made good and where opaque finish is to be applied	Permitted if made good			
Discoloured sapwood (including blue stain)		Not permitted		Permitted if not visible after decoration unless required as a feature			
Exposed pith		Not permitted			Permitted if made good		
Ambrosia beetle damage		Not permitted	Permitted if made good				

NOTE 1 As determined by a 0,2 mm feeler gauge.

NOTE 2 Unless indicated otherwise, remedial work is not permitted in class J10.