



**SLOVENSKI STANDARD**  
**SIST EN 942:2008**

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**BUXca Yý U**  
**SIST EN 942:2002**

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**Les v mizarstvu - Splošne zahteve**

Timber in joinery - General requirements

Holz in Tischlerarbeiten - Allgemeine Anforderungen

Bois dans les menuiseries - Exigences générales

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**Ta slovenski standard je istoveten z: ~~SIST EN 942:2002~~ EN 942:2007**

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**ICS:**

79.040      Les, hlodovina in žagan les      Wood, sawlogs and sawn timber

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 942**

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English Version

## Timber in joinery - General requirements

Bois dans les menuiseries - Exigences générales

Holz in Tischlerarbeiten - Allgemeine Anforderungen

This European Standard was approved by CEN on 11 January 2007.

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 CEN 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 CEN Management Centre has the same status as the official versions.

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

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

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## Foreword

This document (EN 942:2007) 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of an identical text or by endorsement, at the latest by September 2007, and conflicting national standards shall be withdrawn at the latest by October 2007.

This document supersedes EN 942:1996.

This Standard is one of a package to be implemented on 2007.10.31. The Standards included in the Package are:

	Standard Number	Title
1	EN 942 Revised	Timber in joinery - General requirements
2	EN 13307-1	Timber blanks and semi-finished profiles for non-structural uses – Part 1: Requirements
3	EN 14220	Timber and wood-based materials in external windows, external door leaves and external doorframes – Requirements and specifications
4	EN 14221	Timber and wood-based materials in internal windows, internal door leaves and internal doorframes – Requirements and specifications

## Explanation

Standards 3 and 4 rely on both Standards 1 and 2, and Standard 2 relies on 1.

The revised EN 942 contains changes which directly affect standards 2, 3 and 4 and therefore must be available before they can be used effectively.

NOTE Following the completion of the Technical Enquiry for prEN 13307-2, Timber blanks and semi-finished profiles for non-structural uses – Part 2: Production control, it has been agreed to remove this Standard from the package. As a result of the necessary changes it has been agreed to offer prEN 13307-2 as a CEN/TS.

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, 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 United Kingdom.

## Introduction

Commercial grades, i.e. the grade given to timber as a raw material, are not appropriate for referencing in joinery specifications. This European Standard specifies the general grading requirements to be used to determine the characteristics and classify, by appearance, the quality of timber in joinery. This method is not appropriate for the purchase specification of timber. This standard provides only recommendations for the moisture content of timber. Specific moisture contents are covered in the specific product standards.

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## 1 Scope

This European Standard specifies the general requirements including in particular the grading and classification by appearance quality of timber in joinery products or individual joinery parts.

This European Standard is intended to be used at the time of manufacture of a product. However this Standard may be used to evaluate products at a later stage, but in these situations storage and service conditions, subsequent to manufacture, shall be taken into account (surface checks).

Where European product standards exist their timber requirements shall take precedence, unless an alternative improved specification is given as identified in Annex D. If reference to this European Standard is made the specific grade and requirements shall be identified.

This European Standard covers solid, finger-jointed, end-jointed, edge-jointed and laminated timber products.

Matters relating to the influence of timber characteristics on strength and durability are not covered in this Standard.

## 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 350-2, *Durability of wood and wood-based products – Natural durability of solid wood - Part 2: Guide to natural durability and treatability of selected wood species of importance in Europe.*

EN 844-3:1995, *Round and sawn timber - Terminology - Part 3: General terms related to sawn timber*  
<https://standards.iteh.ai/catalog/standards/sist/a07c32d3-8017-4789-a38e-bb26d608c0d5/sist-en-942-2008>

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

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 13183-3, *Moisture content of a piece of sawn timber – Part 3: Estimation by capacitance method*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 844-3:1995 and the following apply.

### 3.1

#### **joinery**

wood and wood-based products graded for non-structural use within a building

NOTE These grading rules do not apply to wood-based panels covered by EN 13986.

### 3.2

#### **concealed face**

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

NOTE These faces may be visible before the product is installed.

**EN 942:2007 (E)****3.3****semi-concealed face**

visible face of a joinery part which cannot be viewed when the product is in the closed position

**3.4****visible face**

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

NOTE 1 An opaque paint finish, does not constitute concealment.

NOTE 2 Faces which are visible when moving parts (e.g. shutters) are open are classified as semi-concealed.

**4 Basic principles****4.1 Appearance classes**

Timber in joinery shall be classified by referencing a number of basic features which are given in Clause 5 and summarised in Table 1. In addition, a number of other factors shall be taken into account and these are given in the rest of Clause 4.

Any feature is accepted on a concealed face if the serviceability of the product is not impaired.

**4.2 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 and on the selection of timber species in Annex D.

NOTE 2 Durability, a factor influencing the performance of timber, is covered by EN 335-2, 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.

**4.3 Density**

The density of timber used will have a significant effect on mechanical performances. Reference densities for common species are given in EN 350-2.

**4.4 Growth rings**

Limits on growth rings are not specified within the grading rules. If the number and width of growth rings are to be specified, the measurement method shall be the method given in EN 1310.

NOTE Where the width and number of growth rings may affect the mechanical performance of a product or the fabrication of glued components (laminated profiles), reference should be made to the appropriate product standard.

**4.5 Surface quality**

The surface of timber in visible faces shall be able to accept a coating system without any further operation other than light sanding.



## 4.6 Moisture content

The measurement of the moisture content of the timber in a product is applicable at the completion time of the product manufacture and prior to the application of any coating. The moisture content (percent) of the timber shall be in accordance with the relevant product standard or national requirements.

NOTE 1 Where a relevant product standard or national requirement does not exist, the guidance on moisture content given in Annex B is recommended.

The moisture content shall be estimated using, either the method described in EN 13183-2, or EN 13183-3. In the case of a dispute the method to be used shall be the method described in EN 13183-1 (Destructive method).

NOTE 2 The more accurate method described in EN 13183-1 is a destructive method and may not always be appropriate.

## 4.7 Finger-jointing, butt-jointing, edge-jointing and laminating

Unless otherwise agreed, finger-jointing, butt-jointing and edge-jointing shall be permitted in classes J10, J20, J30, J40 and J50 according to Table 1 but shall not be permitted in class J2 and J5, unless accepted by a product standard. The distance between the centres of finger-joints and butt-joints shall be at least 150 mm.

Laminating sections in any class shall be permitted unless otherwise agreed.

## 5 Classification of features

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### 5.1 General

The appearance classes in Table 1 are independent of the species. The limits set in Table 1 for each feature relative to the specific class shall not be exceeded when a specific class is specified. The classification of features can be missed subject to the declaration of the class for each feature as given in Table D.1 (See example in Table D.2).

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.

NOTE 1 Handover relates to the time the joinery is supplied by the manufacturer to the first purchaser.

NOTE 2 The classes in Table 1 generally apply to visible faces. Unless otherwise specified semi-concealed faces, in the same product, may be graded up to two classes lower and concealed faces may be any lower class.

The following features are identified in Table 1:

- spiral grain;
- slope of grain;
- loose or unsound knots;
- knots;
- resin pockets;
- bark pockets;
- fissures, shakes;

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- exposed pith;
- discoloured sapwood;
- 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.

The measurement of features shall be carried out in accordance with the «general method» given in EN 1310.

NOTE See also the guidance given in C.2.

The following features are generally not permitted :

- reaction wood;
- splits;
- biological attack;
- wane.

**5.2 Knots and knot clusters**

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**5.2.1 Types**

Knots and knot clusters shall be limited in size and distribution, according to 5.2.2 and 5.2.3.

Loose or unsound knots shall not be present except on concealed faces. When they occur on a visible face, the timber shall be repaired 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 repair unless extremely sound.

**5.2.2 Size**

Unless otherwise specified in the relevant product standard or specification, the limit on size shall be expressed as a percentage of the overall width or thickness of the finished piece on which the knot or knot cluster occurs and a maximum knot size.

Annex A illustrates the measurement of dimensions of finished pieces.

No individual knot or knot cluster shall exceed the size limit shown in Table 1, as appropriate for:

- a) class of timber;
- b) face category (visible, semi-concealed or concealed).

These size limits apply even if a piece of timber is laminated or edge jointed.

**5.2.3 Distribution**

On visible faces, knots or knot clusters larger than 10 mm shall be distributed at centres no closer than 150 mm on average, measured over the length of the piece.

For all classes, when considering distribution, knots of 10 mm or less shall be disregarded.

## 6 Remedial work

### 6.1 Plugs and fillers

Where indicated in Table 1, the following shall be repaired by the manufacturer with a plug or filler:

- loose or unsound knots;
- shakes greater than 0,5 mm in width;
- resin pockets;
- bark pockets;
- exposed pith;
- ambrosia beetle attack.

NOTE It is impractical to fill shakes narrower than 0,5 mm.

Repair to visible faces in J2 and J5 classes according to Table 1 is not permitted, remedial work to semi-concealed faces of J2 and J5 is acceptable.

### 6.2 Requirements

Any plug shall: <https://standards.iteh.ai/catalog/standards/sist/a07c32d3-8017-4789-a38e-bb26d608c0d5/sist-en-942-2008>

- a) be of the same or similar species as the surrounding timber;
- b) be well secured by an appropriate adhesive;
- c) be within the moisture content range recommended by the adhesive manufacturer;
- d) occupy the depth of the hole whenever possible;
- e) whenever possible lie with its grain in the same general direction as the grain of the piece into which it is inserted;

NOTE 1 It is possible that a plug may be produced from 'branch material' to create the appearance of a knot.

- f) be of a dimension not greater than 6 mm above the maximum limit of knot size for the specified class; (the width of a non-cylindrical plug shall be not more than 30 mm);
- g) have at least 2/3 of its diameter within the face when occurring at an arris.

In the case of an abnormally elongated knot or defect not more than two plugs shall be used. Not more than one plug shall be used for a single repair below a translucent coating.

NOTE 2 The intersecting of plugs is permitted.

NOTE 3 A plug need not necessarily be cylindrical.

The repair of a knot shall be classified as a sound intergrown knot.