



**SLOVENSKI STANDARD**  
**SIST EN 975-1:2003**  
**01-oktober-2003**

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Opis izgleda in razvrstitve trsnega lesa - Del 1: Borovnik in buk

Sawn timber - Appearance grading of hardwoods - Part 1: Oak and beech

Schnittholz - Klassifizierung nach dem Aussehen für Laubholz - Teil 1: Eiche und Buche

Bois sciés - Classement d'aspect des bois feuillus - Partie 1: Chêne et hêtre

Ta slovenski standard je istoveten z: **EN 975-1:1995**

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**ICS:**

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

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EUROPEAN STANDARD

EN 975-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 1995

ICS 79.040

Descriptors: wood, sawn timber, hard wood, deciduous timber, oak wood, beech wood, quality, appearance, visual examination, classifications, categories, acceptance

English version

## Sawn timber - Appearance grading of hardwoods - Part 1: Oak and beech

Bois sciés - Classement d'aspect des bois  
feuillus - Partie 1: Chêne et hêtre

Schrittholz - Klassifizierung nach dem Aussehen  
für Laubholz - Teil 1: Eiche und Buche

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# CEN

European Committee for Standardization  
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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of an identical text or by endorsement, at the latest by March 1996, and conflicting national standards shall be withdrawn at the latest by March 1996.

According to the CEN/CENELEC Internal Regulations, 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.

## 1 Scope

This standard specifies the rules determining the quality of appearance graded sawn timber. It describes various classes of temperate hardwood rough sawn and regularized timber for which it lays down denominations and definitions. It also gives rules for composition and acceptance of batches.

This standard applies to green and dried timber.

This standard does not apply either to the strength grading of structural timber or to timber for pallets.

This standard is applicable to the following products :

1.1 **Oak sawn timber** , in the following categories :

- boules and loose unedged timber;
- square edged timber (not exceeding 27 mm thickness);
- baulks (cross section from 100 mm x 100 mm to 250 mm x 250 mm).

Sawn timber which are not included within these limits may be defined, if necessary, by contract specifications established on the basis of this standard.

1.2 **Beech sawn timber**, in the following categories :

- boules and loose unedged timber;
- square edged timber;
- prepared timber.

## 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.

Round and sawn timber - Terminology

EN 844-1 Round and sawn timber -Terminology - Part 1: General terms common to round timber and sawn timber

EN 844-3 Round and sawn timber -Terminology - Part 3: General terms relating to sawn timber

prEN 844-4 Round and sawn timber -Terminology - Part 4:Terms relating to moisture content

prEN 844-6 Round and sawn timber -Terminology - Part 6:Terms relating to dimensions of sawn timber

prEN 844-7 Round and sawn timber -Terminology - Part 7:Terms relating to biological structure of timber

prEN 844-9 Round and sawn timber -Terminology - Part 9:Terms relating to features of sawn timber

prEN 1310 Round and sawn timber- Method of measurement of features  
prEN 1311 Round and sawn timber- Method of measurement of biological degradations

### 3 Definitions

For the purposes of this standard, the definitions in parts 1, 3, 4, 6, 7, 9 of prEN 844 apply.

## 4 Method of determination of sawn timber quality

### 4.1 Rules for grading

Hardwood sawn timber ( oak and beech ) can be put into grades using the principles laid down in 4.2, the criteria defined in 4.3, and the following tables:

- Table 1 gives rules for grading oak boules and loose unedged timber;
- Table 2 gives rules for grading oak strips and square edged timber;
- Table 3 gives rules for grading oak baulks;
- Table 4 gives rules for grading beech boules and loose unedged timber;
- Table 5 gives rules for grading beech strips and square edged timber;
- Table 6 gives rules for grading beech prepared timber.

### 4.2 Grading principles

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#### 4.2.1 Assessment of the quality of a piece (square edged sawn timber)

Each piece of sawn timber is graded according to the appearance of its faces, and edges, taking into account the presence, the size, the position and the distribution of any structural features, any sawing defects, and any other deterioration it may have suffered. Non conformity with the conditions applicable to any one of these elements is sufficient to downgrade the piece.

Dimensional inaccuracy (irregular thickness and/or width), is not taken into account for quality grading of the pieces. It is already covered by standards relating to the dimensions of sawn hardwoods, or by any specific requirements defined contractually.

#### 4.2.2 Assessment of the quality of boules or loose unedged timber

##### 4.2.2.1 Boules

The boule is graded as a whole in terms of quality.

NOTE: For example, a board free of features and showing no deterioration, contained within a boule of lower grade, is not sufficient reason to upgrade the entire boule. In the same way, if a heart board contains more features than allowed by the grade to which the rest of the boule belongs, this is not sufficient reason to downgrade the boule.

##### 4.2.2.2 Loose unedged timber

Each loose unedged timber is assessed individually.

##### 4.2.2.3 Special provision for boules and loose unedged timber

The presence of features not acceptable in the grading tables of this European standard causes volume reductions as indicated in grading tables 1 and 4.

#### 4.2.3 Assessment of the quality of a batch of square edged timber

The pieces shall conform to the grading rules of the grade in which they have been placed. Volume reduction is not applicable to these products.

#### 4.3 Criteria to be taken into account

Quality is determined on the basis of the rules given in the tables and according to prEN 1310 and prEN 1311.

The following criteria are sufficient for the appearance grading of sawn oak and beech:

##### 4.3.1 Criteria linked to the structure of the timber

- knots (size, shape, condition, degree of intergrowth, distribution);
- shakes and drying checks;
- texture (for oak);
- grain;
- bark pocket;
- sapwood;
- included sapwood.

##### 4.3.2 Sawing characteristics

- Quarter sawn timber;
- Plain sawn timber;
- Boxed heart;
- Exposed heart;
- Wane.

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##### 4.3.3 Warp

- Bow;
- Spring;
- Cup;
- Twist.

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##### 4.3.4 Insect attack

##### 4.3.5 Stains

- Red heart;
- Black streaks;
- Other discolourations.

##### 4.3.6 Fungal attack

- Dote;
- Rot.

The moisture content of the timber at the time of grading shall be stated.

#### 5 Denomination of grades

##### 5.1 General

The denomination includes from three to six characters.

5.1.1 The first character is the species' initial in Latin: Q for oak and F for beech.

**5.1.2 The next character indicates the type of product:**

- B for boules;
- F for strips and square edged timber;
- P for baulks;
- D for prepared timber.

**5.1.3 The next character indicates the quality grade**

- "A" indicates exceptional quality;
- 1, 2, ... represent the other grades.

In some cases, these are subdivided, denoted by the addition of lower case letters and suffixes ( see below).  
The grades for oak and beech are specified in 5.2 and 5.3.

**5.2 Oak (Q)**

Boules : Q-B A, Q-B 1, Q-B 2, Q-B 3;  
Strips and square edged timber : Q-F A, Q-F 1a, Q-F 1b, Q-F 2, Q-F 3;

The addition at the end of class denomination:

- of the letter X, indicates the presence of sapwood on one face of strips or square edged pieces,
- of letters XX, indicates the presence of sapwood on all faces of strips or square edged pieces.

Baulks : Q-P A, Q-P 1, Q-P 2.

**5.3 Beech (F)**

Boules : F-B A, F-B 1, F-B 2, F-B 3;  
Strips and square edged timber : F-F A, F-F 1, F-F 2;  
Prepared timber : F-D A, F-D 1, F-D 2;

The addition of the letter R at the end indicates the presence of red heart.

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**6 Composition of batches**

The grading tables indicate maximum tolerances, and batches sold shall show normal distribution of quality, between the limits of the grade immediately above, and those of the grade in question. This distribution is the one which will be applied to in any dispute, unless there is precise commercial documentary indication that it should not be applied. 10 % of pieces belonging to the next lower grade are permitted, to take into account grading misjudgment.

**7 Acceptance of batches****7.1 Boules and loose unedged timber**

Unless otherwise specified by the purchase, reception with quality acceptance of boules and loose unedged timber shall take place on the seller's premises to allow volume reduction to be carried out if necessary ( see 4.2.2.3 ).

**7.2 Square edged timber**

Reception can be carried out either on the seller's or the buyer's premises, as mutually agreed, using random sampling methods <sup>1)</sup>.

**8 Tables of rules for grading**

<sup>1)</sup> A standard relating to this subject is currently being drafted in CEN.



TABLE 1: APPEARANCE GRADING OF OAK BOULES OR LOOSE UNEDGED TIMBER

DIMENSIONAL CHARACTERISTICS	GRADE			
	Q-B A	Q-B 1	Q-B 2	Q-B 3
	Minimum acceptable for grade	Minimum acceptable for grade	Minimum acceptable for grade	Minimum acceptable for grade
CATEGORIES	The dimensions below are those of the center board, measured at mid-length, freshly sawn, excluding bark, with no reduction for shrinkage.			
Boule	350 mm to 390 mm 400 mm to 490 mm 500 mm to 590 mm 600 mm to 690 mm 700 mm and over	250 mm to 290 mm ; 300 mm to 390 mm ; 400 mm to 480 mm ; 500 mm to 590 mm ; 600 mm to 690 mm and over.	250 mm to 290 mm 300 mm to 390 mm 400 mm to 490 mm 500 mm to 590 mm 600 mm to 690 mm 700 mm and over	
Loose unedged timber	250 mm to 290 mm ; 300 mm to 390 mm ; 400 mm to 480 mm ; 500 mm to 590 mm ; 600 mm to 690 mm and over.			
LONGUEUR	Boule	3 m and over by increments of 100 mm	2 m and over by increments of 100 mm	2 m and over by increments of 100 mm ; 10% of 1 m to 1,9 m permitted.
Loose unedged timber		2 m and over by increments of 100 mm		2 m and over by increments of 100 mm ; 10% of 1 m to 1,9 m permitted.
NARROWEST WIDTH	80 mm excluding sapwood on the all length of the piece		80 mm excluding sapwood ( measured at the mid-length of the piece )	60 mm excluding sapwood ( measured at the mid-length of the piece )

"continued"

TABLE 1: ( continued )

QUALITATIVE CHARACTERISTICS	GRADE			Maximum acceptable for grade
	Q-B A	Q-B 1	Q-B 2	
	Maximum acceptable for grade	Maximum acceptable for grade	Maximum acceptable for grade	
KNOTS				
Intergrown, partially intergrown or dead sound	1 of 20 mm or equivalent per 2 m length	1 of 40 mm or equivalent per 2 m length. Permitted, if larger, but distributed among 25% of pieces; provided the volume is reduced.	1 of 80 mm or equivalent per 2 m length. Permitted, if larger, but distributed among 25% of pieces; provided the volume is reduced.	Permitted unless otherwise specified in the contract
Rotten	Not permitted	Not permitted	Permitted on 10% of pieces, in the above defined limits.	Permitted unless otherwise specified in the contract
Cat's paw	Permitted within the same limits as the knots, defined above.			
SHAKES				
Heart shake	Shakes are taken into account by their presence, without any size limit.			
Permitted provided the volume is reduced (NOTE 2)				
Frost shake	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2).	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2)	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2)	Limits to be specified in the contract
Ring shake	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2).	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2)	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2)	Limits to be specified in the contract
Star shake	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2).	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2).	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2).	Limits to be specified in the contract
Drying check	Limits to be specified in contract terms.			
	Permitted			

"continued"

TABLE 1: ( continued )

QUALITATIVE CHARACTERISTICS	GRADE					
	Q-B A	Q-B 1	Q-B 2	Q-B 3		
	Maximum acceptable for grade	Maximum acceptable for grade	Maximum acceptable for grade	Maximum acceptable for grade	Maximum acceptable for grade	
TEXTURE						
Fine ( regular annual rings $\leq 3$ mm )	To be specified in the contract.	To be specified in the contract				
Moderately fine ( regular annual rings $\leq 4,5$ mm )	Permitted if not otherwise specified in the contract.	Permitted if not otherwise specified in the contract.				
Coarse	Not permitted	Permitted				
GRAIN	Slope of grain is visually estimated, except if not otherwise specified in the contract .					
Slope of grain	Straight grain	Approximately straight grain	Sloping grain permitted	Unlimited		
Spiral grain	Not permitted	Not permitted	Permitted	Permitted		
Curly grain	Not permitted	Not permitted	Permitted	Permitted		
BARK POCKET						
Surface bark pocket	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2)	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2)	Permitted	Permitted		
Through bark pocket	Not permitted	Not permitted	Not permitted	Permitted		

"continued"

TABLE 1: ( continued )

QUALITATIVE CHARACTERISTICS	GRADE					
	Q-B A	Q-B 1	Q-B 2	Q-B 3		
	Maximum acceptable for grade	Maximum acceptable for grade	Maximum acceptable for grade	Maximum acceptable for grade	Maximum acceptable for grade	
SAPWOOD						
Sound	Permitted on each edge of the piece if width $\leq$ 40mm. If more, permitted provided the volume is reduced.		Permitted		Permitted	
Unsound	Not permitted	Not permitted	Permitted provided the volume is reduced (NOTE 2)		Permitted	
INCLUDED SAPWOOD	Not permitted	Not permitted	Not permitted		Permitted	
COLOUR						
Variation	Not permitted	Permitted unless otherwise specified in the contract.	Permitted		Permitted	
Light	To be specified in the contract.	To be specified in the contract.				
STAINS						
Red heart	Not permitted	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2).	Permitted		Permitted	
Brown stain	Not permitted	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2).	Permitted		Permitted	
Black streaks	Not permitted	Permitted if solitary (NOTE 1), provided the volume is reduced (NOTE 2).	Permitted		Permitted	

"continued"