



SLOVENSKI STANDARD

SIST EN 1611-1:2003

01-oktober-2003

Opis izgleda in razvrstitve mehkih iglicastih vrstev evropske smreke, smole, smole in douglasove smreke
[Opis izgleda in razvrstitve mehkih iglicastih vrstev evropske smreke, smole, smole in douglasove smreke]

Sawn timber - Appearance grading of softwoods - Part 1: European spruces, firs, pines and Douglas firs

Schnittholz - Sortierung nach dem Aussehen von Nadelholz - Teil 1: Europäische Fichten, Tannen, Kiefern und Douglasie

Bois sciés - Classement d'aspect des bois résineux - Partie 1: Epicéas, sapins, pins et Douglas Européens

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Ta slovenski standard je istoveten z: EN 1611-1:1999

ICS:

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

SIST EN 1611-1:2003

en

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EUROPEAN STANDARD

EN 1611-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 1999

ICS 79.040.00

English version

Sawn timber - Appearance grading of softwoods - Part 1: European spruces, firs, pines and Douglas firs

Bois sciés - Classement d'aspect des bois résineux - Partie
1: Epicéas, sapins, pins et Douglas Européens

Schnittholz - Sortierung nach dem Aussehen von Nadelholz
- Teil 1: Europäische Fichten, Tannen, Kiefern und
Douglasie

This European Standard was approved by CEN on 23 July 1999.

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 Central Secretariat 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 Central Secretariat 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, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European standard has been prepared by the Technical Committee CEN/TC175 "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 February 2000, and conflicting national standards shall be withdrawn at the latest by February 2000.

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, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This standard is one of a series of standards concerning appearance grading of non-structural timber. The other standard of this series is:

EN 975-1 Sawn timber - Appearance grading of hardwoods - Part 1: Oak and beech.

1 Scope

This European Standard defines appearance grades for European spruces, firs, pines and Douglas firs.

The standard applies to dry and green sawn timber.

This standard does not apply to the strength grading of structural 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 part of European standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

| | |
|--------------|---|
| EN 844-1 | Round and sawn timber - Terminology - Part 1 : General terms common relating to round timber and sawn timber |
| EN 844-3 | Round and sawn timber - Terminology - Part 3 : General terms relating to sawn timber |
| EN 844-4 | Round and sawn timber - Terminology - Part 4 : Terms relating to moisture content |
| EN 844-6 | Round and sawn timber - Terminology - Part 6 : Terms relating to dimensions of sawn timber |
| EN 844-7 | Round and sawn timber - Terminology - Part 7 : Terms relating to anatomical structure of timber |
| EN 844-9 | Round and sawn timber - Terminology - Part 9 : Terms relating to features of sawn timber |
| EN 844 -10 | Round and sawn timber - Terminology - Part 10: Terms relating to stain and fungal attack https://standards.iteh.ai/catalog/standards/sist/fa2b7607-b49f-4e27-82f0-50ea38e3ca49/sist-en-1611-1-2003 |
| EN 844-11 | Round and sawn timber - Terminology - Part 11: Terms relating to degrade by insects. |
| EN 1310:1997 | Round and sawn timber - Method of measurement of features |
| EN 1311 | Round and sawn timber - Method of measurement of biological degrade |

3 Definitions

For the purposes of this standard, the definitions in EN 844-1, EN 844-3, EN 844-4, EN 844-6, EN 844-7, EN 844-9, EN 844-10 and EN 844-11 apply.

4 Rules for grading

4.1 General rules

This standard gives two grading procedures, G2 and G4 :

- G2 Knots on two faces (see table 1) and other features as per table 3 (Grades : G2-0, G2-1, ...)
- G4 Knots on two faces and two edges (see table 2) and other features as per table 3 (Grades : G4-0, G4-1, ...)

The grading procedure used shall be specified in the contract.

The grade of a piece of timber is based on the judgement of grade on each face/side separately.

Procedure G2: If both faces are of the same grade, this is the grade of the piece. If there is a better and a worse face, the grade of the piece is one grade better than the grade of the worse face.

Procedure G4: If all four sides are of the same grade, this is the grade of the piece.
If one of the faces is of a lower grade than any of the other three sides, the grade of the piece is one grade better than the grade of this worse face.

If one of the edges has the lowest grade among the four sides, this lowest grade is the grade of the piece.

This standard only defines the lower limit of each grade. Any batch of softwood supplied graded to these rules shall contain a fair distribution of quality.

When assessing the quality of a batch the maximum number of non conforming pieces shall be determined by reference to contract terms.

4.2 Determination of features

4.2.1 General

Features are measured according to EN 1310.

4.2.2 Knots

Knots shall be assessed with regard to form, position and condition.

Knots of 10 mm or less are not considered unless unsound or loose ;

Round or oval knots on faces are to be measured in accordance with 4.1.1 of EN 1310:1997 including the compensation rule;

Round or oval knots on edges are to be measured in accordance with 4.1.2 of EN 1310:1997.

NOTE 1: An intergrown knot can appear as a partially intergrown knot or a dead knot on the opposite face.

NOTE 2: A partially intergrown knot can appear as an intergrown knot or a dead knot on the opposite face.

NOTE 3: A dead knot can appear as an intergrown knot or a partially intergrown knot on the opposite face.

4.2.3 Wane

Wane with bark is not permitted.

5 Tables of rules for grading

Table 1 : Grading on two faces
Maximum accepted values for knots for European spruces, firs, pines and Douglas firs
(to be used in conjunction with clauses 1 to 4)

| see NOTE | FEATURES | | LIMITS | | | | |
|----------------|--|--|-------------------------|-------------------------|-------------------------|-------------------------|---|
| | | | grade G2-0 | grade G2-1 | grade G2-2 | grade G2-3 | grade G2-4 |
| (A) (B) | Size of round/oval knots on graded face | sound intergrown | 10% of width + 10 mm | 10% of width + 20 mm | 10% of width + 35 mm | 10% of width + 50 mm | unlimited but maintaining the integrity of the piece |
| | | dead or partially intergrown | 10% of width + 0 mm | 10% of width + 10 mm | 10% of width + 20 mm | 10% of width + 50 mm | |
| | | encased (bark ringed) | not permitted | 10% of width + 0 mm | 10% of width + 15 mm | 10% of width + 40 mm | |
| | | unsound or loose | not permitted | not permitted | 10% of width + 15 mm | 10% of width + 40 mm | |
| (A) (C) | Knot number per worst meter | total number | 2 | 4 | 6 | unlimited | |
| | | of which unsound / loose or encased | 0 | 1 (*) | 2 | 5 | |
| | | of which spike and splay | 0 | 4 | 6 | unlimited | |

(*) only applies to encased knots

NOTES :

(A) Knots of 10 mm or less are not considered unless unsound or loose

(B) In spruces, firs and Douglas firs in widths of 225 mm or wider, knot size shall be increased by 10 mm
In pines in widths of 180 mm or wider, knot size shall be increased by 10 mm

(C) For pieces for which the width is in excess of 225 mm the total number of knots shall be increased by 50%

Table 2 : Grading on four sides
Maximum accepted values for knots for European spruces , firs, pines and Douglas firs
(to be used in conjunction with clauses 1 to 4)

| see NOTE | FEATURES | | LIMITS | | | | | |
|--|--|---|--|-------------------------|-------------------------|-------------------------|---|-----|
| | | | grade G4-0 | grade G4-1 | grade G4-2 | grade G4-3 | grade G4-4 | |
| (A) (B) | Size of round/oval knots on graded face | sound intergrown | 10% of width + 10 mm | 10% of width + 20 mm | 10% of width + 35 mm | 10% of width + 50 mm | unlimited | |
| | | dead or partially intergrown | 10% of width + 0 mm | 10% of width + 10 mm | 10% of width + 20 mm | 10% of width + 50 mm | | |
| | | encased (bark ringed) | not permitted | 10% of width + 0 mm | 10% of width + 15 mm | 10% of width + 40 mm | | |
| | | unsound or loose | not permitted | not permitted | 10% of width + 15 mm | 10% of width + 40 mm | | but |
| (A) (D) | Size of round/oval knots on the edges | sound intergrown- % of thickness | 50 | 90 | 100 | 100 | maintaining the integrity of the piece | |
| | | - maximum size | no larger than maximum permitted face knot | | | | | |
| | | dead or partially intergrown - % of thickness | 33 | 67 | 75 | 100 | | |
| | | - maximum size | no larger than maximum permitted face knot | | | | | |
| | | encased (bark ringed) - % of thickness | 0 | 33 | 50 | 90 | | |
| | | - maximum size | no larger than maximum permitted face knot | | | | | |
| unsound or loose - % of thickness | 0 | 0 | 50 | 90 | | | | |
| - maximum size | no larger than maximum permitted face knot | | | | | | | |

.../...

Table 2 (concluded)

| see NOTE | FEATURES | | LIMITS | | | | |
|-------------|---|--|---------------|---------------|---------------|---------------|---|
| | | | grade G4-0 | grade G4-1 | grade G4-2 | grade G4-3 | grade G4-4 |
| (A) | Knot number on graded face per worst metre | total number | 2 | 4 | 6 | unlimited | unlimited but maintaining the integrity of the piece |
| | | of which unsound / loose or encased | 0 | 1 (*) | 2 | 5 | |
| | | of which spike and splay | 0 | 4 | 6 | unlimited | |
| (C) | Knot number per worst metre on either edge | total number | 1 | 2 | 4 | unlimited | the integrity of the piece |
| | | of which unsound/ loose or encased | 0 | 1 | 2 | 3 | |

(*) only applies to encased knots

NOTES :

(A) Knots of 10 mm or less are not considered unless unsound or loose

(B) In spruces, firs or Douglas firs in widths of 225 mm or wider, knot size shall be increased by 10 mm
In pines in widths of 180 mm or wider, knot size shall be increased by 10 mm

(C) For pieces for which the width is in excess of 225 mm the total number of knots shall be increased by 50%

(D) Traversing knots are allowed in a piece of grades G4-2, G4-3 and G4-4.