



SLOVENSKI STANDARD

SIST EN 14298:2005

01-januar-2005

Žagani les – Ocenjevanje kakovosti sušenja

Sawn timber - Assessment of drying quality

Schnittholz - Ermittlung der Trocknungsqualität

Bois scié - Estimation de la qualité du séchage

Ta slovenski standard je istoveten z: EN 14298:2004

[SIST EN 14298:2005](https://standards.iteh.ai/catalog/standards/sist/20630b89-7687-442c-b203-7be2bfce11d6/sist-en-14298-2005)

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ICS:

79.040	Les, hlodovina in žagani les	Wood, sawlogs and sawn timber
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 14298

November 2004

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English version

Sawn timber - Assessment of drying quality

Bois scié - Estimation de la qualité du séchage

Schnittholz - Ermittlung der Trocknungsqualität

This European Standard was approved by CEN on 2 September 2004.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Foreword

This document (EN 14298:2004) 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of an identical text or by endorsement, at the latest by May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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EN 14298:2004 (E)

1 Scope

This document defines a method of assessment of drying quality. It applies to a lot of dried sawn timber, a lot of dried planed timber and a lot of dried sawn timber surfaced by other means. It applies to both softwood and hardwood with a thickness not greater than 100 mm.

The quality of drying is expressed in terms of target and average moisture content of the lot as well as defining the moisture content variation between individual pieces expressed as allowable upper and lower limits.

An option for specifying the degree of case-hardening is included.

NOTE 1 Other features related to drying, e.g. checking, distortions, stain, etc., are specified in documents for visual grading of sawn timber or in product specifications and are not covered by this document.

NOTE 2 In the following the term "sawn timber" is used for all dried timber covered by this the scope.

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 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 844-12:2000, *Round and sawn timber - Terminology – Part 12: Additional terms and general index*

EN 1438, *Symbols for timber and wood-based products*
<http://www.iten.it/standards/sist/20630b89-7687-442c-b203-7be2bfc11d6/sist-en-14298-2005>

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*

ENV 14464, *Sawn timber – Method for assessment of case-hardening*

ENV 12169, *Criteria for the assessment of conformity of a lot of sawn timber*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 844-3:1995, EN 844-4:1997 and EN 844-12:2000 and the following apply:

3.1

target moisture content (ω_{arg})

desired moisture content of a lot expressed as a single percentage.

3.2

average moisture content (ω_{m})

arithmetic mean of the moisture content of the pieces in a lot

3.3

lot

number of sawn timber pieces of the same thickness for all species and width for softwoods dried to the same specification

4 Symbols and abbreviations

In conformity to EN 1438, the following symbols are used:

- ω moisture content in percent
- ω_{arg} target moisture content in percent
- ω_{m} average moisture content in percent

5 Drying quality specification

5.1 General

A drying specification shall give the target moisture content, the permitted range of the actual average moisture content relative to the target moisture content and the permitted moisture content variation between individual pieces expressed as allowable upper and lower limits.

The permitted degree of case-hardening may be included in the specification.

5.2 Standard drying

Standard drying is to a target moisture content of 7 % to 18 %.

For standard drying the allowable range of average moisture content of a lot is given in Table 1.

93.5 % of the pieces shall have an individual moisture content between the upper and lower limits. These limits are $1,3 \times \omega_{\text{tar}}$ and $0,7 \times \omega_{\text{tar}}$ respectively.

Sampling to determine average and individual moisture contents shall be in accordance with ENV 12169 single sampling, AQL 6,5. For determination of average and individual moisture contents see Clause 6.

Table 1 — Standard drying - Allowable range for the average moisture content of a lot relative the target moisture content

Target moisture content %	Allowable range of average moisture content around target moisture content %
7	-1/+1
8	-1/+1
9	-1/+1
10	-1,5/+1,5
11	-1,5/+1,5
12	-1,5/+1,5
13	- 2,0/+1,5
14	- 2,0/+1,5
15	- 2,0/+1,5
16	- 2,5/+2,0
17	- 2,5/+2,0
18	- 2,5/+2,0

5.3 Specific end-use drying

For specific end uses drying quality features different from the standard drying quality may be required. In this case, a drying quality specification shall contain the following information:

- Target moisture content,
- Allowable range of average moisture content in relation to α_{arg} ,
- Allowable upper and lower limits of moisture content (individual pieces)
- Applicable AQL (see ENV 12169)

6 Assessment of drying quality of a lot of sawn timber

6.1 Range of moisture content

To comply with a drying specification, the average moisture content of a lot, established by measuring the moisture content of the pieces in a sample drawn from the lot, shall be within a given range relative to the target moisture content and the individual moisture contents of a pre-defined proportion of the sampled pieces shall be within the upper and lower limits.

6.2 Sampling

Sampling shall be carried out in accordance with ENV 12169 with the exception that pieces from the outer layers (top, bottom, sides) shall not be included.

6.3 Testing and evaluation

6.3.1 Moisture content

For each of the sampled pieces the moisture content shall be estimated according to EN 13183–2 (Electrical resistance method). In the case of a dispute, EN 13183–1 (Oven-dry method) shall be used.

To assess the conformity of the lot, the arithmetic mean shall be calculated and the number of non conforming pieces in the sample shall be determined.

The lot conforms if both the average moisture content and the number of non conforming pieces are within the given limits in EN 14298 and ENV 12169 respectively.

6.3.2 Case-hardening

If specified, the degree of case-hardening, expressed as mm gap opening, shall be determined on every second sampled piece according to the procedure described in ENV 14464.

The lot conforms to the requirements of standard drying with respect to case-hardening if the degree of case-hardening in 80 % of the sampled pieces is below the required value.