



SLOVENSKI STANDARD
SIST EN 14298:2018

01-januar-2018

Nadomešča:
SIST EN 14298:2005

Žagani les - Ocenjevanje kakovosti sušenja

Sawn timber - Assessment of drying quality

Schnittholz - Ermittlung der Trocknungsqualität

Bois scié - Estimation de la qualité du séchage

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: ~~SIST EN 14298:2017~~ EN 14298:2017

<https://standards.iteh.ai/catalog/standards/sist/1aa65224-b96-47b7-b20f-0ad0fd947cab/sist-en-14298-2018>

ICS:

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

SIST EN 14298:2018

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 14298:2018

<https://standards.iteh.ai/catalog/standards/sist/1aa65224-bf96-47b7-b20f-0ad0fd947cab/sist-en-14298-2018>

EUROPEAN STANDARD

EN 14298

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2017

ICS 79.040

Supersedes EN 14298:2004

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 4 September 2017.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

[SIST EN 14298:2018](https://standards.iteh.ai/catalog/standards/sist/1aa65224-bf96-47b7-b20f-0ad0fd947cab/sist-en-14298-2018)

<https://standards.iteh.ai/catalog/standards/sist/1aa65224-bf96-47b7-b20f-0ad0fd947cab/sist-en-14298-2018>



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Symbols and abbreviations	5
5 Drying quality specification	5
5.1 General.....	5
5.2 Standard drying quality.....	5
5.3 Specific end-use drying.....	6
6 Assessment by control of drying quality of a lot of sawn timber	6
6.1 General.....	6
6.2 Sampling.....	7
6.3 Moisture content.....	7
6.4 Criteria drying quality.....	8
6.4.1 Moisture content.....	8
6.4.2 Case-hardening.....	8
6.5 Test report.....	8
Annex A (informative) Example for an assessment of standard drying quality 12 %	9
A.1 General.....	9
A.2 Sampling.....	9
A.3 Measurements.....	9
A.4 Assessment of drying quality.....	9
A.5 Conclusion.....	10

iTech STANDARD PREVIEW
(standards.itech.ai)

European foreword

This document (EN 14298:2017) 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 April 2018, and conflicting national standards shall be withdrawn at the latest by April 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 14298:2004.

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

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 14298:2018](#)

<https://standards.iteh.ai/catalog/standards/sist/1aa65224-bf96-47b7-b20f-0ad0fd947cab/sist-en-14298-2018>

EN 14298:2017 (E)

1 Scope

This European Standard defines a method of assessment of drying quality. It applies to a lot of dried sawn timber (surfaced or not). It applies to both softwood and hardwood with a thickness not greater than 100 mm.

The quality of drying is expressed in terms of moisture content: target, average of the lot and variation between the pieces of the lot.

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

NOTE 1 Other features related to drying, e.g. check, shake, warp, 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 scope.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 moisture 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*

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*

CEN/TS 12169, *Criteria for the assessment of conformity of a lot of sawn timber*

CEN/TS 14464, *Sawn timber — Method for assessment of case-hardening*

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_{targ}

desired moisture content of a lot expressed as a single percentage

3.2

average moisture content

ω_{m}

arithmetic mean of the moisture content measurements of the pieces of a control sample taken from the lot for testing

3.3**lot**

whole of sawn timber pieces of the same species, same thickness and same specification

3.4**control sample**

number of individual pieces to be tested according to a pre-defined procedure during quality control

3.5**piece**

single sawn timber taken from a lot for testing

4 Symbols and abbreviations

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

- ω moisture content in percent;
- ω_{targ} target moisture content in percent;
- ω_{m} average moisture content in percent.

5 Drying quality specification**5.1 General**

iTeh STANDARD PREVIEW

(standards.iteh.ai)

A drying specification gives:

- the target moisture content;
- the permitted difference between the average moisture content of the lot and the target;
- the permitted variation of moisture content between individual pieces inside lower and upper limits.

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

5.2 Standard drying quality

The specification of standard drying quality according to this standard is possible for target moisture content between 7 % and 20 %.

Sampling to determine average and individual moisture contents shall be in accordance with CEN/TS 12169 single sampling, AQL 6.5. For determination of average and individual moisture contents see Clause 6.

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.

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

Table 1 — Standard drying quality - 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
19	- 2,5/+2,5
20	- 2,5/+2,5

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 ω_{targ} ;
- allowable upper and lower limits of moisture content (individual pieces);
- applicable AQL (see CEN/TS 12169).

6 Assessment by control of drying quality of a lot of sawn timber

6.1 General

To assess the conformity of the lot, the arithmetic mean of moisture contents of the pieces of the control sample taken from the lot shall be calculated and the number of non-conforming pieces in the control piece 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 CEN/TS 12169 respectively.

In the absence of any specification, the principle is based on the following sampling.

6.2 Sampling

Sampling shall be carried out in accordance with CEN/TS 12169, with a level II of inspection, a single sampling and an AQL 6.5.

The pieces from the outer layers (top, bottom, sides) are avoided as much as possible.

NOTE Non-conforming with sampling = probability of over 90 % for the lot to contain a percentage of non-conforming pieces greater than 6,5 %.

Sampling takes two parameters:

- the number of packages to be inspected, see Table 2;
- the number of pieces of a lot to be measured, see Table 3.

Table 2 — Number of packages to be inspected in a lot

Total number of packages in a lot	Number of packages to control
1	1
2 to 5	2
6 to 11	3
12 and over	4

If controlled packages are insufficient compared to the number of pieces to be tested, it should increase the number of packages to be inspected as much as necessary.

Table 3 — Number of pieces to be taken and number of non-conforming parts tolerated

Total number of pieces in a lot	Number of pieces to assess	Maximum number of non-conforming pieces in the control sample
2 to 15	2	0
16 to 50	8	1
51 to 90	13	2
91 to 150	20	3
151 to 280	32	5
281 to 500	50	7
501 to 1 200	80	10
1 201 to 3 200	125	14
3 201 and over	200	21

6.3 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.