



# SLOVENSKI STANDARD

## SIST-TS CEN/TS 12169:2008

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### Merila za ugotavljanje skladnosti partije žaganega lesa

Criteria for the assessment of conformity of a lot of sawn timber

Kriterien zur Konformitätsprüfung eines Loses Schnittholz Kriterien

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Critere de vérification de la conformité d'un lot de bois scié

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**SIST-TS CEN/TS 12169:2008**

**en,fr,de**

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English Version

## Criteria for the assessment of conformity of a lot of sawn timber

Critères de vérification de la conformité d'un lot de bois scié

Kriterien zur Konformitätsprüfung eines Loses Schnittholz

This Technical Specification (CEN/TS) was approved by CEN on 22 October 2007 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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## Foreword

This document (CEN/TS 12169:2008) has been prepared by Technical Committee CEN/TC 175 "Round and sawn timber", the secretariat of which is held by AFNOR.

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

This document supersedes ENV 12169:2000.

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## Introduction

The purpose of this document is to define an inspection system for a lot of sawn timber. This document uses statistical sampling plans found in ISO 2859-1.

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## 1 Scope

This document defines the sampling plans and procedures for inspection by attributes (measurable properties) of sawn timber lots exhibiting a homogenous distribution of characteristics. It also gives control regulations and conditions for conformity or non conformity of a lot in view of the agreed specification.

This document applies to any sawn timber products claimed to comply with specifications defined in the sales contract.

It does not cover the spread of different qualities within a grade or between the contracted grades.

In case of a dispute, a sampling carried out only by customer or supplier is not valid as it cannot be guaranteed to be free from manipulation. Furthermore parties are free to enlarge the sampling or make use of another method provided an agreement is made between the interested parties.

## 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.

ISO 2859-1, *Sampling procedures for inspection by attributes – Part 1: Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection*.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **lot of sawn timber**

a number of sawn timber pieces of the same thickness and width and the same quality grade

NOTE A lot of sawn timber can be, for example:

- package of sawn timber,
- truckload, a wagon load or shipload of sawn timber,
- pile of sawn timber,
- kiln load.

### 3.2

#### **acceptable Quality Level (AQL)**

the maximum percentage of non-conforming pieces of sawn timber that can be considered satisfactory as a process average

### 3.3

#### **non-conforming piece**

a piece which fails to meet the quality requirements

### 3.4

#### **package**

a part of a homogeneous lot

## 4 Conformity control

### 4.1 Objective

The objective of the inspection is to determine with a high probability whether the lot does not conform to the specifications fixed in the contract and a complaint seems to be justified. Hence the decision is between "conformity" and "nonconformity".

### 4.2 Principle

The control of the lot is carried out on the basis of attributes. The pieces making up the sample are defined as "conforming" or "nonconforming". The decision regarding conformity or nonconformity of the lot is made on the basis of the number of nonconforming pieces in comparison to the total number of the pieces in the sample.

In the case of simultaneous assessments according to different specifications (e.g. appearance, moisture content, dimensions), the number of nonconforming pieces is evaluated independently.

### 4.3 Applicable AQL

If no AQL value is defined in the accepted grading rules or in the contract, AQL 10 shall be used. (see Tables 2 and 3)

NOTE If in random sampling the maximum number of nonconforming pieces "A", as defined in the AQL tables is exceeded, the whole lot will contain, with a probability of more than 90 %, a percentage of nonconforming pieces in excess of the AQL value.

### 4.4 Type of inspection

The inspection, described in this document, is carried out according to ISO 2859-1 (General inspection, normal inspection, reference to Table I, II or even III A). Other sampling plans, e.g. reduced or increased inspection, may be used if stipulated by the interested party in the contract or a separate agreement.

## 5 Sampling

### 5.1 Sampling rules

Sampling is based on the concept of AQL. AQL is generally suitable for trade agreements regarding conformity.

Sampling shall be so that random, for none of the parties to the contract will be able to decide which pieces to be inspected. The minimum number of packages to be opened is shown in Table 1. If for any reason the number of packages given in the table is deemed insufficient (for example a large number of packages which are seen to be defective before they are opened), a larger number of packages may be opened.



Table 1 — Number of packages to be opened

Number of packages in the lot	Number of packages to be opened
1	1
2 to 5	2
6 to 11	3
12 or more	4 <sup>a</sup>

<sup>a</sup> If these packages do not contain the number of pieces required in Table 2, the necessary additional packages shall be opened.

Sampling can be carried out either as single sampling (according to 5.2.1) or as double sampling (according to 5.2.2).

Double sampling means that a smaller number of pieces than in simple sampling are inspected as a first sampling. This leads to "conformity", "nonconformity" or "uncertain". If result is "uncertain", a second sampling is carried out and the results added to those of the first sampling. The conformity or nonconformity can be determined.

The ways of wrapping and protection timber package during transport varies widely. Sometimes the top layer or pieces in the top layer are used to help protect the other pieces in the package. In such a case, the top layer may, by agreement, be excluded from the sampling.

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## 5.2 Single procedure

### 5.2.1 Single sampling

The number of packages to be opened is given in Table 1.

Based on the number of pieces in the lot, the total number of pieces to be inspected (sample size) is given in Table 2.

By dividing the sample size by the number of packages to be opened, determine the number of test pieces per package, rounding the result down to the nearest whole number. If the total number of pieces, as calculated, does not agree exactly with the number given in Table 2, the extra piece(s) has (have) to be selected at random in opened packages (only one per package).

The first piece to be assessed in each package is selected at random in the top layer. Then, each layer is scanned from left to right according to a frequency of inspection obtained by dividing the total number of pieces in the package by the number of pieces to be inspected ; the result is round down to the nearest whole number.

The number of nonconforming pieces in different packages is cumulated. The Column A of Table 2 allows to determine the conformity of the lot.

**EXAMPLE** An example is given in Figure 1, where a lot consisting of 3 600 pieces in 15 packages is inspected. Therefore, in accordance with Table 1, four packages are opened. In accordance with Table 2, AQL 10, 125 pieces are inspected or 31 pieces per package (which makes 124 pieces, so take an extra piece at random from one of the packages). As there are 240 pieces in each package, every eighth piece is inspected (240/31, rounded). In Figure 1, every eighth piece gave 30 pieces, so one extra piece is selected at random. If out of the 125 sample pieces more than 21 are nonconforming (see Table 2) the lot is nonconforming. Otherwise the lot is conforming.