

SLOVENSKI STANDARD SIST ENV 12169:2003

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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

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

Ta slovenski standard je istoveten z: ENV 12169:2000

<u>SIST ENV 12169:2003</u>

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EUROPEAN PRESTANDARD PRÉNORME EUROPÉENNE

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This European Prestandard (ENV) was approved by CEN on 24 April 2000 as a prospective standard for provisional application.

The period of validity of this ENV 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 ENV can be converted into a European Standard.

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

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

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Foreword

This European Prestandard has been prepared by Technical Committee CEN/TC 175 "Round and sawn timber", the secretariat of which is held by AFNOR.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this European Prestandard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

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

1 Scope

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

This standard 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.

NOTE In case of a dispute, a sampling carried out only by customer or supplier is not valid as it cannot always be verified that it is free from manipulation.

Furthermore people are free to enlarge the sampling or make use of another method provided an agreement occurs between the interested people.

2 Normative references STANDARD PREVIEW

This European prestandard 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 (including amendments): b-4455-bca9-

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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 prestandard, 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:

- a package of sawn timber,
- a truckload, wagon load or shipload of sawn timber,
- a pile of sawn timber,
- a 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. (standards.iteh.ai)

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4 Conformity control

4.1 Objective

The objective of the inspection is to determine with a high probability (> 90 %), whether the lot does not conform to the properties fixed in the contract and a complaint seems to be justified. Hence the decision is between "conformity" and "non-conformity".

4.2 Principle

The control of the lot is carried out on the basis of attributes if not otherwise specified in the contract. The pieces making up the sample are defined as "conforming" or "non-conforming". The decision regarding conformity or non-conformity of the lot is made on the basis of the number of non-conforming pieces in comparison to the total number of the pieces in the sample.

In the case of different simultaneous assessments according to different quality rules (e.g. appearance grading and drying quality), the number of non-conforming pieces is evaluated independently for each quality rule.

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 a random sampling the maximum number of non-conforming 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 non-conforming pieces in excess of the AQL value.

4.4 Type of inspection

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

5 Sampling

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5.1 Sampling rules://standards.iteh.ai/catalog/standards/sist/663009e7-d53b-4455-bca9-13dde03cef34/sist-env-12169-2003

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

Sampling shall be at random, for none of the interested people to the contract shall be able to decide which pieces will 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 insufficent (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 ^a		

^a 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 is inspected as a first sampling. This leads to "conformity", "non-conformity" or "uncertain". If the result is "uncertain", a second sampling is carried out and the results added to those of the first sampling. Conformity or non-conformity can then be determined.

The ways of wrapping and protecting 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.

5.2 Sampling 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 and rounding the result down to the nearest whole number, determine the number of test pieces per package.

If the number of pieces does not agree exactly, select extra pieces at random.

Determine the first piece to be inspected in the package (in the top layer) by throwing dice or a similar random method.

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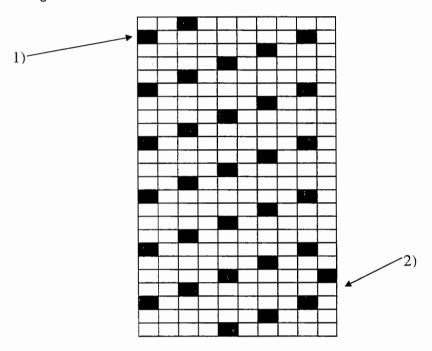
Divide the number of pieces in the package by the number of test pieces to be inspected in the package and round down the result to the nearest whole <u>number. This gives</u> the "frequency" of inspection e.g. every eighth piece. https://standards.iteh.ai/catalog/standards/sist/663009e7-d53b-4455-bca9-

Scan each layer from left to right and inspect the pieces (e.g. every eighth piece).

Add together the results of the inspection of the various packages and compare with Table 2.

This determines the status of the whole lot ("conformity" or "non-conformity").

EXAMPLE An example is given in Figure 1, where a lot consisting of 3600 pieces in 15 packages is inspected. In accordance with Table 1, open four packages. In accordance with Table 2, AQL 10,inspect 125 samples, or 31 samples per package (which makes 124, so take an extra piece at random from one of the packages). Since there are in this case 240 pieces in each package, inspect every eighth piece (240/31, rounded). In Figure 1, every eighth piece gave 30 pieces, so one extra piece has been selected. If out of the 125 sample pieces more than 21 are non-conforming (see Table 2) the lot is non conforming. Otherwise the lot should be conforming.



Key

- 1) First piece selected by throwing dice
- 2) Extra piece to make up total 31

Figure 1 - Selecting pieces in a package

Table 2 - Single sampling - Sample sizes and maximum numbers of non-conforming pieces

Pieces in the lot	AQ	AQL 4		AQL 6,5		AQL 10		
	S	A	S	A	S	A		
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100 to 150	20	2	20	3	20	5		
151 to 280	32	(standa)	rds.32eh.	ai) 5	32	7		
281 to 500	50	5	50	7	50	10		
501 to 1200	80	FIST EN	V 121602003	10	80	14		
1201 to 3200	125	10 10	1.25 1.25	14	125	21		
3201 to 10000	200 200 200 200 200 200 200 200 200 200	iteh.ai/catalog/star 13dde03cef34/	200	21	125	21		
10001 and more	315	13ddeu3ce134/	sist-env 17169-20	⁾⁰³ 21	125	21		
S = Sample size $A = Maximum number of non-conforming pieces$								