



SLOVENSKI STANDARD
SIST EN 322:1996

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Opredeljevanje vsebnosti vlage v lesnih izdelkih

Wood-based panels - Determination of moisture content

Holzwerkstoffe - Bestimmung des Feuchtegehaltes

Panneaux a base de bois - Détermination de l'humidité

Ta slovenski standard je istoveten z: EN 322:1993

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79.060.01 Številni podatki o lesu in lesnih izdelkih Wood-based panels in general

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English version

Wood-based panels - Determination of moisture content

Panneaux à base de bois - Détermination de l'humidité

Holzwerkstoffe - Bestimmung des Feuchtegehaltes

This European Standard was approved by CEN on 1992-12-15. 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.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard was prepared by Working Group 4 "Common test methods" (Secretariat: United Kingdom) of Technical Committee CEN/TC 112, Wood-based panels (Secretariat: Germany).

The text is based on ISO 9425:1989 which has been elaborated with European participation.

This standard is one of a series of standards specifying methods of test for determining dimensions and properties of wood-based panels.

No existing European Standard is superseded.

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of an identical text or by endorsement, at the latest by August 1993, and conflicting national standards shall be withdrawn at the latest by December 1994.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

1 Scope

This European Standard specifies a method for determining the moisture content of test pieces of wood-based panels. Such result may be used to estimate the moisture content of wood-based panels according to EN 326-1.

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 European Standard, only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 326-1 Wood-based panels - Sampling, cutting and inspection - Part 1: Sampling and cutting of test pieces and expression of test results ¹⁾

3 Principle

Determination, by weighing, of the loss of mass of each test piece between its state at the time of sampling and its state after drying to constant mass at (103 ± 2) °C, and calculation of this loss of mass as a percentage of the mass of the test piece after drying; these results are used to estimate the moisture content of whole boards.

4 Apparatus

4.1 Balance

Balance, scale interval 0,01 g.

4.2 Drying oven

Ventilated drying oven, capable of being controlled at (103 ± 2) °C.

4.3 Desiccator

Silica gel containing a desiccant, to maintain the air as close as possible to the absolutely dry condition.

¹⁾ At present at the draft stage

5 Test pieces

5.1 Sampling and cutting

Sampling and cutting of the test pieces shall be carried out in accordance with EN 326-1. Test pieces shall cover the full thickness of the board.

5.2 Dimensions

The test piece shall have a minimum initial mass of 20 g; shape and size are unimportant. The test pieces shall be free from loose splinters and sawdust.

6 Procedure

6.1 Weighing before drying

Weigh each test piece in the as-sampled state to an accuracy of 0,01 g.

This initial weighing shall be carried out immediately after sampling or where this is impossible, precautions shall be taken to avoid changes in the moisture content of the test piece after sampling.

6.2 Drying

Place the test pieces in the drying oven (4.2) at a temperature of (103 ± 2) °C until constant mass has been reached.

Constant mass is considered to be reached when the results of two successive weighing operations, carried out at an interval of 6 h, do not differ by more than 0,1 % of the mass of the test piece.

6.3 Weighing after drying

After the test pieces have been cooled to approximately room temperature in the desiccator (4.3), weigh each test piece to an accuracy of 0,01 g, rapidly enough to avoid an increase in moisture content greater than 0,1 %.

7 Expression of results

Calculate the moisture content H of each test piece, as a percentage by mass to the nearest 0,1 %, in accordance with the following formula:

$$H = \frac{m_H - m_0}{m_0} \times 100$$

where

m_H is the initial mass of the test piece, in grams

m_0 is the mass of the test piece after drying, in grams

8 Estimation of board moisture content

The moisture content of a board shall be obtained by calculating the arithmetic mean of the moisture contents of all the test pieces taken from the same board and shall be expressed as a percentage to one decimal place.

9 Test report

As described in EN 326-1.

Annex A (informativ)

Bibliography

- EN 309 Particleboards - Definition and classification
- EN 313-1 Plywood - Classification and Terminology - Part 1: Classification
- EN 316 Wood fibreboards - Definitions, classification and symbols
- EN 633 Cement-bonded particleboards - Definition and classification ¹⁾
- ISO 9425 Wood-based panels - Determination of moisture content

¹⁾ At present at the draft stage