



SLOVENSKI STANDARD

SIST EN 382-2:1996

01-marec-1996

Vlknene plošče - Določanje vpijanja na površini - 2. del: Preskusna metoda za plošče po mokrem postopku (plošče HDF)

Fibreboards - Determination of surface absorption - Part 2: Test method for hardboards

Faserplatten - Bestimmung der Oberflächenabsorption - Teil 2: Prüfverfahren für harte Platten

Panneaux de fibres - Détermination de l'absorption des surfaces - Partie 2: Méthode d'essai pour panneaux durs

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ICS:

79.060.20 Vlknene in iverne plošče Fibre and particle boards

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EUROPEAN STANDARD

EN 382-2:1993

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 1993

UDC 674.03:674.815:620.179.11

Descriptors: Wooden boards, fibreboards, tests, water absorption tests, determination, porosity

English version

**Fibreboards - Determination of surface absorption
- Part 2: Test method for hardboards**

Panneaux de fibres - Détermination de
l'absorption des surfaces - Partie 2: Méthode
d'essai pour panneaux durs

Faserplatten - Bestimmung der
Oberflächenabsorption - Teil 2: Prüfverfahren
für harte Platten

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This European Standard was approved by CEN on 1993-11-02. 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.

The European Standards exist 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard was prepared by Working Group 3 "Fibreboards" (Secretariat: Italy) of CEN/TC 112 "Wood-based panels" (Secretariat: Germany).

This Standard is one of a series specifying methods of test for determining the properties of fibreboards. Part 1 of this standard is:
EN 382-1 Fibreboards - Determination of surface absorption - Part 1: Test method for dry process fibreboards"

No existing European Standard is superseded.

[SIST EN 382-2:1996](#)

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 1994, 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 surface absorption of hardboards according to EN 316.

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 316 Wood fibreboards - Definition, classification and symbols

EN 322 Wood-based panels - Determination of moisture content

EN 325 Wood-based panels - Determination of dimensions of test pieces

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

3 Principle

The surface absorption of hardboards is determined by exposing the smooth surface of a test piece to water under specified conditions, and measuring the amount of water absorbed per unit area, in a specified time. The result is expressed in grams per square metre.

NOTE: This test method can also be used in a similar way to determine the absorption of other liquids by some types of wet process fibreboards. This is outside the scope of this standard and therefore no relevant provisions are made.

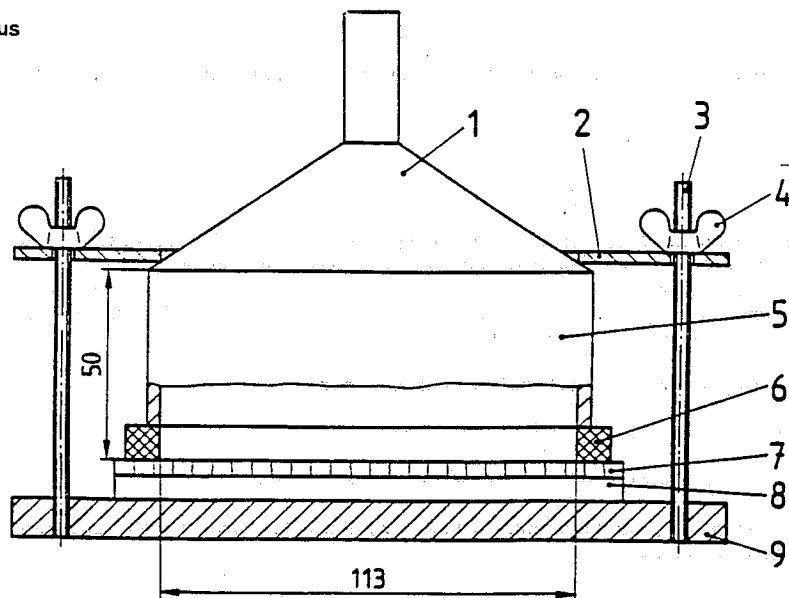
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4 Apparatus

Dimensions in millimetres



- | | |
|------------------------------------|---------------------------|
| 1 = Funnel (optional) | 6 = Rubber seal |
| 2 = Clamping device (plate or bar) | 7 = Test piece |
| 3 = Threaded bolt | 8 = Rubber mat |
| 4 = Wing nut | 9 = Metal plate (support) |
| 5 = Cylinder | |

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Figure 1: Test apparatus (example)

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4.1 Cylinder and support

The apparatus (see example in figure 1) consists of a support (9) and a metal cylinder (5) about 50 mm high, with an internal cross-section of $(10\,000 \pm 50) \text{ mm}^2$ and a minimum wall thickness of 6 mm. The apparatus shall be equipped with a clamping device (2) for fastening the cylinder to the test piece (7) and its support, which is covered with a rubber mat (8). The lower edge of the cylinder shall be flat, machined smooth, and shall be equipped with a rubber seal (6). In order to avoid any water leakage between the cylinder and the test piece, the cylinder with its rubber seal is clamped onto the test piece.

4.2 Balance

Balance, according to EN 322.

4.3 Volumetric cylinder

Graduated volumetric cylinder, having a capacity of at least 100 ml.

5 Test pieces

5.1 Sampling

Sampling and cutting of the test pieces shall be carried out according to the principles of prEN 326-1. Three test pieces shall be taken per panel tested.

5.2 Dimensions

The test pieces shall be square in shape, with a side length of (130 ± 1) mm.

5.3 Conditioning

The test pieces shall be conditioned to constant mass in an atmosphere with a relative humidity of (65 ± 5) % and a temperature of (20 ± 2) °C. Constant mass is considered to be reached when the results of two successive weighing operations, carried out at an interval of 24 h, do not differ by more than 0,1 % of the mass of the test piece.

6 Procedure

6.1 Exposure of the test piece to water

Weigh each test piece to an accuracy of 0,05 g. Place the dry rubber mat on the support, followed by the test piece (figure 1). Place the clean, dry cylinder with its rubber seal onto the test piece and clamp it into position to prevent any water leakage between the cylinder and the test piece during the test. Pour 100 ml of distilled water with a temperature of (20 ± 1) °C into the cylinder. This will provide a water column of 10 mm. Leave the test piece to absorb water via its exposed surface for (120 ± 5) min. A temperature of (20 ± 2) °C shall be maintained throughout the test.

6.2 Determination of water absorption

After the absorption time has elapsed, pour off the water rapidly, unclamp and remove the cylinder immediately, taking care to keep the dry area of the test piece out of contact with the water. Remove excess water and reweigh the test piece immediately (see 6.1) to avoid loss of mass due to evaporation.

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7 Expression of results

For each test piece, calculate the surface absorption value from the following equation:

$$A = 100 (m_2 - m_1)$$

where:

A is the surface absorption (in grams per square metre)

m_1 is the mass of the test piece before testing (in grams)

m_2 is the mass of the test piece after testing (in grams)

The surface absorption of a board is the average of the results of the test pieces taken from that board. It shall be expressed to an accuracy of 1 g/m².

8 Test report

According to prEN 326-1 except for moisture content and density of the test pieces.