



SLOVENSKI STANDARD

SIST EN 312-2:1997

01-april-1997

Iverne plošče - Specifikacije - 2. del: Zahteve za uporabo plošč za splošne namene v suhih pogojih

Particleboards - Specifications - Part 2: Requirements for general purpose boards for use in dry conditions

Spanplatten - Anforderungen - Teil 2: Anforderungen an Platten für allgemeine Zwecke zur Verwendung im Trockenbereich

Panneaux de particules - Exigences - Partie 2: Exigences pour panneaux pour usage général utilisés en milieu sec

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ICS:

79.060.20 Vlakenne in iverne plošče Fibre and particle boards

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en

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EUROPEAN STANDARD

EN 312-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 1996

ICS 79.060.20

Descriptors: wooden boards, particle boards, characteristics, specifications, environments, conformity tests, marking

English version

**Particleboards - Specifications - Part 2:
Requirements for general purpose boards for use
in dry conditions**

Panneaux de particules - Exigences - Partie 2:
Exigences pour panneaux pour usage général
utilisés en milieu sec

Spanplatten - Anforderungen - Teil 2:
Anforderungen an Platten für allgemeine Zwecke
zur Verwendung im Trockenbereich

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This European Standard was approved by CEN on 1996-07-26. 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 has been prepared by Technical Committee CEN/TC 112 "Wood-based panels", the secretariat of which is held by DIN.

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 February 1997, and conflicting national standards shall be withdrawn at the latest by June 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of 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 and the United Kingdom.

This Standard is on of series, specifying requirements for particleboards. The other parts of this series are listed in clause 2 and annex A.



1 Scope

This European Standard specifies the requirements for general purpose boards for use in dry conditions¹⁾.

Additional information on supplementary properties for certain applications is also given.

Particleboards in accordance with this standard may be referred to as P2-boards.

This standard does not give requirements for Oriented Strand Boards (OSB); these are set out in EN 300.

This standard does not apply to extruded particleboards.

For boards intended for use in constructional load-bearing applications see EN 312-4 to EN 312-7.

For boards intended for use in interior fitments and furniture see EN 312-3.

2 Normative references

This European Standard incorporated by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate place 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 300

Oriented Strand Boards (OSB) – Definitions, classification and specification

EN 310

Wood-based panels – Determination of modulus of elasticity in bending and bending strength

EN 311

Particleboards – Surface soundness of particleboards – Test method

EN 312-1

Particleboards – Specifications – Part 1: General requirements for all board types

EN 317

Particleboards and fibreboards – Determination of swelling in thickness after immersion in water

EN 318

Fibreboards – Determination of dimensional changes associated with changes in relative humidity

EN 319

Particleboards and fibreboards – Determination of tensile strength perpendicular to the plane of the board

EN 323

Wood-based panels – Determination of density

EN 326-1

Wood-based panels – Sampling, cutting and inspection – Part 1: Sampling and cutting of test pieces and expressions of test results

¹⁾ Dry conditions are characterized by a moisture contents in the material corresponding to a temperature of 20 °C and the relative humidity of the surrounding air only exceeding 65 % for a few weeks per year. Boards of this type are only suitable for use in biological hazard class 1 of EN 335-3.

3 Requirements

3.1 General

Particleboards shall comply with the general requirements as listed in EN 312-1, together with the requirements set out in Table 1 of this standard.

The requirements in Table 1 shall be met by 5 percentile values based on the mean values for individual boards and calculated in accordance with EN 326-1. They shall be equal to or greater than the values in Table 1.

The values in Table 1 for bending strength shall apply to test results obtained in any direction in the plane of the panel.

3.2 Mechanical properties

Table 1: Requirements for specified mechanical properties

| Property | Test Method | Unit | Requirement | | | | | | |
|------------------|-------------|-------------------|-------------------------------|----------------|-----------------|-----------------|-----------------|-----------------|------|
| | | | Thickness range (mm, nominal) | | | | | | |
| | | | 3 to 6 | >6 to 13 | >13 to 20 | >20 to 25 | >25 to 32 | >32 to 40 | >40 |
| Bending strength | EN 310 | N/mm ² | 14 | 12,5 | 11,5 | 10 | 8,5 | 7 | 5,5 |
| Internal bond | EN 319 | N/mm ² | 0,31 | 0,28 | 0,24 | 0,20 | 0,17 | 0,14 | 0,14 |

NOTE: The values are characterised by a moisture content in the material corresponding to a relative humidity of 65 % and a temperature of 20 °C.

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3.3 Supplementary properties

For certain applications, information on some of the properties listed in Table 2 can be required. On request, This information shall be supplied by the board manufacturer, and in this case shall have been derived using the EN test methods listed in Table 2.

Table 2: Supplementary properties and test methods

| Property | Test method |
|-----------------------|-------------|
| Density | EN 323 |
| Dimensional changes | EN 318 |
| Surface soundness | EN 311 |
| Swelling in thickness | EN 317 |

NOTE: For certain applications, information on additional properties not specified in table 2 can be required. For instance, for the determination of thermal conductivity and of water vapour transmission properties, work is in progress in CEN/TC 89. Until this work is completed, users should refer to national publications. These should also be consulted for information on the fire behaviour of particleboards.

4 Verification of compliance

4.1 General

Verification of compliance with this EN shall be carried out using the test methods listed in table 1 and in EN 312-1.

4.2 External control

External control of the factory, if any, shall be carried out according to a statistical basis²⁾.

Inspection of consignments shall be carried out according to a statistical basis²⁾.

4.3 Internal control

Internal control shall be carried out according to a statistical basis²⁾.

The properties listed in table 1 and in EN 312-1, shall be controlled using intervals between tests not exceeding the intervals given in table 3. Sampling shall be carried out at random. Alternative test methods and/or unconditioned test pieces may be used if a valid correlation to the specified test methods can be proven (see EN 326-2²⁾). The intervals between tests given in table 3 are related to a production under statistical control.

Table 3: Maximum intervals between tests for each product line

| Property | Maximum interval between tests |
|---|--------------------------------|
| General properties | see EN 312-1 |
| All other properties listed in table 1 | 8 h ¹⁾ |
| ¹⁾ If several thickness ranges are produced in one 8 h shift, the internal control shall be organized so that at least one board of each thickness range is tested in one week's production. | |

5 Marking

Each panel or package shall be clearly marked by the manufacturer either by indelible direct printing or by an adhesive label at least with the following information in this sequence:

- a) the manufacturer's name, trade mark, or identification mark;
- b) the number of this EN 312-2;
- c) the nominal thickness;
- d) the formaldehyde class;
- e) the batch number, or the production week and year.

Additionally, panels may be colour coded by the vertical application near one corner of a series of colour stripes each 25 mm in width; the colour shall comply with the colour coding system given in EN 312-1.

²⁾ It is intended to apply prEN 326-2 and prEN 326-2 as a statistical basis when implemented

Annex A (informative)**Bibliography**

EN 309

Particleboards – Definition and classification

EN 312-3

Particleboards – Specifications – Part 3: Requirements for boards for interior fitments (including furniture) for use in dry conditions

EN 312-4

Particleboards – Specifications – Part 4: Requirements for load-bearing boards for use in dry conditions

EN 312-5

Particleboards – Specifications – Part 5: Requirements for load-bearing boards for use in humid conditions³⁾

EN 312-6

Particleboards – Specifications – Part 6: Requirements for heavy duty load-bearing boards for use in dry conditions

EN 312-7

Particleboards – Specifications – Part 7: Requirements for heavy duty load-bearing boards for use in humid conditions³⁾

EN 335-3

Durability of wood and wood-based products – Definition of hazard classes of biological attack – Part 3: Application to wood-based panels

EN 326-2

Wood-based panels – Sampling, cutting and inspection – Part 2: Quality control in the factory

EN 326-3

Wood-based panels – Sampling, cutting and inspection – Part 3: Inspection of consignment of panels

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³⁾ At present at the draft stage