



**SLOVENSKI STANDARD  
SIST EN 622-4:1998**

**01-marec-1998**

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Fibreboards - Specifications - Part 4: Requirements for softboards

Faserplatten - Anforderungen - Teil 4: Anforderungen an poröse Platten

Panneaux de fibres - Exigences - Partie 4: Exigences pour panneaux isolants

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**Ta slovenski standard je istoveten z: EN 622-4:1997**

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**ICS:**

79.060.20 X|a } ^ } ^ / ^ / ^ ! } ^ A || z ^ Fibre and particle boards

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EUROPEAN STANDARD

EN 622-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 1997

ICS 79.060.20

Descriptors: wooden boards, fibreboards, insulating boards, characteristics, specifications, environments, humidity, conformity tests, marking

English version

### Fibreboards - Specifications - Part 4: Requirements for softboards

Panneaux de fibres - Exigences  
Exigences pour panneaux isolants

Partie 4:

Faserplatten - Anforderungen - Teil 4:  
Anforderungen an poröse Platten

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This European Standard was approved by CEN on 1997-04-21. 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, Czech Republic, 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 standard is one of a series specifying requirements for fibreboards. The other parts of this series are listed in clause 2 and annex A.

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 December 1997, and conflicting national standards shall be withdrawn at the latest by December 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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## 1 Scope

This European Standard specifies the requirements for softboards as defined in EN 316, with a density of more than 230 kg/m<sup>3</sup>.

NOTE: If the panels are intended for use exclusively as an insulation material, users should refer to the pertinent draft of CEN/TC 88.

The values listed in this standard relate to product properties but they are not characteristic values to be used in design calculations<sup>1)</sup>.

## 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 310

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

EN 316

Wood fibreboards – Definition, classification, and symbols

EN 317

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

EN 326-1

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

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EN 622-1

Fibreboards – Specifications – Part 1: General requirements

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## 3 Definitions

For the purposes of this standard, the following definitions apply:

**3.1 dry conditions:** conditions (defined in terms of service class 1 of ENV 1995-1-1 for load-bearing boards) characterized by a moisture content in the material corresponding to a temperature of 20 °C and a relative humidity of the surrounding air exceeding 65 % only for a few weeks per year. Boards of this type are suitable for use only in hazard class 1 of EN 335-3.

**3.2 humid conditions:** conditions (defined in terms of service class 2 of ENV 1995-1-1 for load-bearing boards) characterized by a moisture content in the material corresponding to a temperature of 20 °C and a relative humidity of the surrounding air exceeding 85 % only for a few weeks per year. Boards of this type are suitable for use in hazard classes 1 and 2 of EN 335-3.

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<sup>1)</sup> Such characteristic values (e.g. for use in design calculation in ENV 1995-1-1) are either given in prEN 12369 or derived by testing according to EN 789, EN 1058 and ENV 1156.

**3.3 exterior conditions:** imply exposure to weathering conditions or to liquid water or to water vapour in a damp but ventilated location. Boards of this type are suitable for use in hazard classes 1, 2 and 3 of EN 335-3.

**3.4 general purpose use:** all non-load-bearing applications, e.g. furniture and fitments.

**3.5 load-bearing use:** use in a load-bearing construction, i.e. an organized assembly of connected parts designed to provide mechanical resistance and stability to the works. Also referred to as "structure".

**3.6 load duration category:** see table 1

**Table 1: Load duration categories**

Load duration category	Order of accumulated duration of characteristic load	Examples of loading
Permanent	more than 10 years	self weight
Long term	6 months to 10 years	storage
Medium term	1 week to 6 months	imposed load
Short term	less than one week	snow*), wind
Instantaneous		accidental loading

\*) In areas which have a heavy snow load for a prolonged period of time, part of the load should be regarded as medium-term.

## 4 Requirements

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### 4.1 General

Softboards shall comply with the general requirements of EN 622-1 together with the relevant requirements set out in 4.2 and 4.3 of this standard.

This requirements in the tables shall be met by 5 percentile values (95 percentile values in the case of swelling in thickness), based on the mean test values for individual panels and calculated in accordance with EN 326-1. In the case of swelling in thickness, they shall be equal to or less than the values in the tables, and in the case of all other properties, they shall be equal to or greater than the values in the tables. The values in the tables for both bending strength and modulus of elasticity shall apply to test results obtained in any direction in the plane of the panel.

With the exception of swelling in thickness, the values given in the tables are characterised by a moisture content in the material corresponding to a temperature of 20 °C and a relative humidity of 65 %. The values given for swelling in thickness are characterised by a moisture content in the material corresponding to a temperature of 20 °C and a relative humidity of 65 % before the treatment (immersion in water).

The moisture resistance of softboards for use in humid and exterior conditions (see tables 3, 4 and 6) is reflected by the respective requirements for swelling in thickness after 2 hours' immersion in cold water (according to EN 317). This property as well as the improvement of mechanical resistance of boards used in instantaneous or short-term load-bearing situations is derived from the addition of a petrochemical substance (e.g. bitumen).

## 4.2 Requirements for general purpose boards

### 4.2.1 Requirements for boards for use in dry conditions

Table 2 specifies the requirements for general purpose boards for use in dry conditions.

**Table 2: Requirements for general purpose boards for use in dry conditions (type SB)**

Property	Test method	Unit	Ranges of nominal thickness (mm)		
			≤ 10	> 10 to 19	> 19
Swelling in thickness 2 h	EN 317	%	10	10	10
Bending strength	EN 310	N/mm <sup>2</sup>	0,9	0,8	0,8

### 4.2.2 Requirements for boards for use in humid conditions

Table 3 specifies the requirements for general purpose boards for use in humid conditions.

**Table 3: Requirements for general purpose boards for use in humid conditions (type SB.H)**

Property	Test method	Unit	Ranges of nominal thickness (mm)		
			≤ 10	> 10 to 19	> 19
Swelling in thickness 2 h	EN 317	%	7	7	7
Bending strength	EN 310	N/mm <sup>2</sup>	1,0	1,0	0,8

### 4.2.3 Requirements for boards for use in exterior conditions

Table 4 specifies the requirements for general purpose boards for use in exterior conditions.

**Table 4: Requirements for general purpose boards for use in exterior conditions (type SB.E)**

Property	Test method	Unit	Ranges of nominal thickness (mm)		
			≤ 10	> 10 to 19	> 19
Swelling in thickness 2 h	EN 317	%	6	6	6
Bending strength	EN 310	N/mm <sup>2</sup>	1,2	1,1	0,9

### 4.3 Requirements for load-bearing boards

#### 4.3.1 Requirements for boards for use in dry conditions

Table 5 specifies the requirements for load-bearing boards for use in dry conditions for instantaneous or short-term load duration only.

Table 5: Requirements for load-bearing for use in dry conditions (type SB.LS)

Property	Test method	Unit	Ranges of nominal thickness (mm)		
			≤ 10	> 10 to 19	> 19
Swelling in thickness 2 h	EN 317	%	8	8	8
Bending strength	EN 310	N/mm <sup>2</sup>	1,2	1,1	0,9
Modulus of elasticity in bending	EN 310	N/mm <sup>2</sup>	140	130	100

NOTE: If it is made known by the purchaser that the boards are intended for specific use in flooring, walls or roofing, the relevant performance standard also has to be consulted. This may result in additional requirements having to be complied with.

#### 4.3.2 Requirements for boards for use in humid conditions

Table 6 specifies the requirements for load-bearing boards for use in humid conditions for instantaneous or short-term load duration only.

Table 6: Requirements for load-bearing boards for use in humid conditions (type SB.HLS)

Property	Test method	Unit	Ranges of nominal thickness (mm)		
			≤ 10	> 10 to 19	> 19
Swelling in thickness 2 h	EN 317	%	6	6	6
Bending strength	EN 310	N/mm <sup>2</sup>	1,3	1,2	1,0
Modulus of elasticity in bending	EN 310	N/mm <sup>2</sup>	150	140	120

NOTE: If it is made known by the purchaser that the boards are intended for specific use in flooring, walls or roofing, the relevant performance standard also has to be consulted. This may result in additional requirements having to be complied with.



## 5 Verification of compliance

### 5.1 General

Verification of compliance with this European Standard shall be carried out using the test methods listed in EN 622-1 and in tables 2, 3, 4, 5, and 6, as appropriate.

### 5.2 External control

External control of the factory, if any, shall be carried out according to a statistical basis<sup>2)</sup>.

The inspection of a consignment of panels shall be carried out according to a statistical basis<sup>2)</sup>.

### 5.3 Internal control

Internal control shall be carried out according to a statistical basis<sup>2)</sup>. The properties listed in tables 2, 3, 4, 5, and 6 and in EN 622-1 shall be controlled, using intervals between tests not exceeding the intervals given in table 7. 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. The intervals between tests given in table 7 are related to a production under statistical control.

**Table 7: Maximum intervals between tests for each production line**

Property	Maximum interval between tests
General properties	see EN 622-1
All other properties listed in tables 2, 3, 4, 5 and 6	8 h*)
*) If several thickness ranges are produced in 8 h, the internal control shall be organized so that at least one board of each thickness range is tested in one week's production.	

## 6 Marking

### 6.1 General purpose boards

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

<sup>2)</sup> It is intended to apply EN 326-2 and EN 326-3 (which are under preparation for the time being) as a statistical basis when implemented.