



**SLOVENSKI STANDARD**  
**SIST EN 14755:2006**

**01-maj-2006**

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Extruded particleboards - Specifications

Spanplatten nach dem Strangpressverfahren (Strangpressplatten) - Anforderungen

Panneaux de particules extrudés - Exigences

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**Ta slovenski standard je istoveten z: EN 14755:2005**

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**ICS:**

79.060.20 X|æ } ^ } ^ / æ / æ ^ } ^ Á || z ^ Fibre and particle boards

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 14755**

October 2005

ICS 79.060.20

English Version

**Extruded particleboards - Specifications**

Panneaux de particules extrudés - Exigences

Strangpressplatten - Anforderungen

This European Standard was approved by CEN on 8 July 2005.

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.

This European Standard exists 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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## Foreword

This European Standard (EN 14755:2005) 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of an identical text or by endorsement, at the latest by April 2006, and conflicting national standards shall be withdrawn at the latest by April 2006.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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**EN 14755:2005 (E)****1 Scope**

This European Standard specifies the requirements for non load-bearing extruded particleboards for use in dry conditions.

NOTE Dry conditions are defined in terms of service class 1 of EN 1995-1-1 which is characterized by a moisture content in the material corresponding to a temperature of 20°C and a relative humidity of the surrounding air only exceeding 65% for a few weeks per year. Boards of this type are only suitable in biological hazard class 1 of EN 335-3.

**2 Normative references**

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 120, *Wood-based panels — Determination of formaldehyde content — Extraction method called the perforator method*

EN 310, *Wood-based panels — Determination of modulus of elasticity in bending and of bending strength*

EN 317, *Particleboards and fibreboards — Determination of swelling in thickness after immersion in water*

EN 319, *Particleboards and fibreboards — Determination of tensile strength perpendicular to the plane of the board*

EN 322, *Wood-based panels — Determination of moisture content*

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 expression of test results*

EN 326-2, *Wood-based panels — Sampling, cutting and inspection — Part 2: Quality control in the factory*

EN 717-1, *Wood-based panels — Determination of formaldehyde release — Part 1: Formaldehyde emission by the chamber method*

### 3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

#### 3.1

**solid density**

density of the board without the tubes

#### 3.2

**panel density**

density of the board

#### 3.3

**cheek thickness**

shortest distance between the edge of a tube and the panel surface

### 4 Symbols and abbreviations

**ES:** Extruded Solid: Board without tube with a density more or equal to 550 kg/m<sup>3</sup>.

**ET:** Extruded Tubes: Board with tubes with solid density more or equal to 550 kg/m<sup>3</sup> and cheek thickness more than or equal to 5 mm.

**ESL:** Extruded Solid Light: Board without tube and with a density less than 550 kg/m<sup>3</sup>.

**ETL:** Extruded Tubes Light: Board with tubes and with a solid density less than 550 kg/m<sup>3</sup> or cheek thickness less than 5 mm.

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### 5 Requirements

#### 5.1 General

Each board shall comply with the requirements given in Tables 1 and 2.

The requirements in Table 2 shall be met by 5 percentile values based on the mean values for individual boards and calculated in accordance with EN 326-1. In the case of all properties they shall be equal to or greater than the values in Table 2.

#### 5.2 General requirements

General requirements are given in Table 1.

## EN 14755:2005 (E)

Table 1 — General requirements

No	Property	Test method	Requirement
1	Moisture content at dispatch	EN 322	5 % to 13 %
2	Tolerance on the mean solid density within a board	EN 323	± 15 %
3 <sup>a</sup>	Formaldehyde potential		
	Class E 1 Perforator value	EN 120 or	≤ 8 mg/100 g oven dry board
	Steady state emission value <sup>b</sup>	EN 717-1	Release ≤ 0,124 mg/m <sup>3</sup> air
	Class E 2 <sup>c</sup> Perforator value	EN 120 or	> 8 mg/100 g oven dry board
	Steady state emission value <sup>b</sup>	EN 717-1	≤ 30 mg/100 g oven dry board Release > 0,124 mg/m <sup>3</sup> air

<sup>a</sup> The perforator values apply to boards with moisture contents  $H$  of 6,5 %. In the case of particleboards with different moisture content (in the range of  $3 \% \leq H \leq 10 \%$ ) the perforator value shall be multiplied by a factor  $F$  which can be calculated from the following equation:

$$F = -0,133 H + 1,86$$

<sup>b</sup> Required for initial type testing other than for established products where initial type testing may also be done on the basis of existing data with EN 120 or EN 717-1 testing, either from factory production control or from external inspection.

<sup>c</sup> In certain countries only products of class E1 are allowed.

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### 5.3 Mechanical properties

For the determination of mechanical properties, apply test methods given in Annex A.

Each panel shall respect the minimum values (5<sup>th</sup> percentile values) as given in table 2:



**Table 2 — Minimum values of mechanical properties**

Board type	Thickness range (mm)	Bending strength perpendicular to fabrication (N/mm <sup>2</sup> )	Tensile strength parallel to fabrication (N/mm <sup>2</sup> )
ES	≤ 16	4	0,17
	> 16 ≤ 50	3	0,17
ET	≤ 30	2,5	0,17
	> 30 ≤ 45	1,7	0,17
	> 45 ≤ 70	1	0,17
ESL	All thicknesses	1	0,1
ETL		1	0,1

## 6 Supplementary properties

On request, supplementary properties can be given. See Annex B (informative).

## 7 Factory production control

Factory production control shall be carried out according to EN 326-2.

The properties listed in the Tables 1 and 2, 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 326-2).

Each requirement relating to formaldehyde potential (perforator value) shall be met by the 95 percentile value based on test values of individual boards. The 95 percentile value shall be equal to or less than the respective tabulated values given in Table 1.

**Table 3 — Maximum interval between test**

Property	Maximum interval between tests
Moisture content for each type of board	24 h
Formaldehyde potential <sup>a</sup>	
Class E 1	24 h per type of board (ES or ESL and ET or ETL)
Class E 2	1 week per type of board
Density for each type of board	8 h
Internal bond for each type of board	1 month
Bending strength for each type of board	1 week
<p><sup>a</sup> Certain types of particleboards are known to release little or no formaldehyde. In these cases, the test intervals may be increased. However, it remains the responsibility of the manufacturer or inspection agency, if any, to ensure compliance with this European Standard.</p>	