

**Tsementsideainega puitlaastplaadid.
Spetsifikaadid. Osa 2: Kuivades,
niisketes ja välistingimustes
kasutatavate portlandtsement-
sideainega plaatide nõuded**

Cement-bonded particleboards - Specifications -
Part 2: Requirements for OPC bonded
particleboards for use in dry, humid and external
conditions

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 634-2:2007 sisaldab Euroopa standardi EN 634-2:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 30.03.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 634-2:2007 consists of the English text of the European standard EN 634-2:2007.</p> <p>This document is endorsed on 30.03.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: See Euroopa standard tsementsideainega plaatide kohta määrab kindlaks nõuded kuivas, niiskes ja väliskeskkonnas kasutatavatele puitlaastplaatidele, mille sideaineks on harilik portlandtsement. Antud on ka lisainfo kõrvalomaduste kohta teatavateks rakendusteks. MÄRKUS: Tsementsideainega puitlaastplaat ei sisalda asbestkiudu.</p>	<p>Scope: This European Standard for cement-bonded particleboards specifies the requirements for particleboards bonded with Ordinary Portland Cement (OPC) for use in dry, humid and external conditions. Additional information on supplementary properties for certain applications is also given.</p>
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Võtmesõnad: eristuskiri, keskkond, markeerimine, materjalid, näitajad, portlandtsemendid, puitlaastplaadid, puitplaadid, sideained, tsemendid, vastavusteimid

English Version

**Cement-bonded particleboards - Specifications - Part 2:
Requirements for OPC bonded particleboards for use in dry,
humid and external conditions**

Panneaux de particules liées au ciment - Exigences - Partie
2 : Exigences pour les panneaux de particules liées au
ciment Portland ordinaire utilisés en milieux sec, humide et
extérieur

Zementgebundene Spanplatten - Anforderungen - Teil 2:
Anforderungen an Portlandzement (PZ) gebundene
Spanplatten zur Verwendung im Trocken-, Feucht- und
Außenbereich

This European Standard was approved by CEN on 13 January 2007.

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 CEN Management Centre 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 CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN 634-2:2007) 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 August 2007, and conflicting national standards shall be withdrawn at the latest by August 2007.

This document supersedes EN 634-2:1996.

The principal modifications introduced by this standard consist of a revision of the product marking requirements, clarification that external control in the factory is carried out according to EN 326-2, and clarification that inspection of an isolated lot of panels may be carried out according to EN 326-3.

This standard is one of a series specifying requirements for cement-bonded particleboards:

- EN 634-1, *Cement-bonded particleboards — Specification — Part 1: General requirements*;
- EN 634-2, *Cement-bonded particleboards — Specifications — Part 2: Requirements for OPC bonded particleboards for use in dry, humid and external conditions*.

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

1 Scope

This European Standard for cement-bonded particleboards specifies the requirements for particleboards bonded with Ordinary Portland Cement (OPC) for use in dry, humid¹⁾ and external²⁾ conditions. Additional information on supplementary properties for certain applications is also given.

NOTE 1 Boards made with cement other than OPC may comply with this Standard if test values are declared according to EN 13986. However, further parts of EN 634 may be developed in the future to cover other types of cement or other materials.

NOTE 2 Cement-bonded particleboard does not contain any asbestos fibre.

2 Normative references

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

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 318, *Wood based panels — 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 320, *Fibreboards — Determination of resistance to axial withdrawal of screws*

EN 321, *Wood-based panels - Determination of moisture resistance under cyclic test conditions*

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 634-1, *Cement-bonded particleboards — Specification — Part 1: General requirements*

EN 789, *Timber structures — Test methods — Determination of mechanical properties of wood based panels*

EN 1058, *Wood-based panels — Determination of characteristic values of mechanical properties and density*

EN 1128, *Cement-bonded particleboards — Determination of hard body impact resistance*

ENV 1156, *Wood-based panels — Determination of duration of load and creep factors*

1) Humid conditions are defined in terms of service class 2 of EN 1995-1-1 which is characterized by moisture content in the material corresponding to a temperature of 20 °C and a relative humidity of the surrounding air exceeding 85 % for only a few weeks per year. Boards of this type are suitable for use in biological hazard classes 1 and 2 of EN 335-3.

2) External conditions are defined in terms of service class 3 of EN 1995-1-1. Boards of this type are suitable for use in biological hazard classes 1, 2, 3 and 4 of EN 335-3.

EN 1328, *Cement bonded particleboards — Determination of frost resistance*

EN 13986:2004, *Wood-based panels for use in construction — Characteristics, evaluation of conformity and marking*

3 Requirements

3.1 General requirements

OPC bonded particleboards shall comply with the general requirements listed in EN 634-1 and the requirements set out in Table 1 of this standard.

3.2 Specified properties

The requirements in Table 1 shall be met by five percentile values (95 percentile values in the case of thickness swelling) based on the mean values for individual boards and calculated in accordance with EN 326-1. In the case of thickness swelling they shall be equal to or less than the values in Table 1 and in the case of all other properties they shall be equal to or greater than the values in Table 1.

Table 1 — Requirements for specified properties

Property	Test method	Unit	Requirement (all thicknesses)
Density	EN 323	Kg/m ³	1 000
Bending strength	EN 310	N/mm ²	9
Modulus of elasticity in bending	EN 310	N/mm ²	Class 1 4 500 Class 2 4 000
Internal bond	EN 319	N/mm ²	0,5
Swelling in thickness 24 h	EN 317	%	1,5
Internal bond after cyclic test	EN 319 and EN 321	N/mm ²	0,3
Swelling in thickness after cyclic test	EN 317 and EN 321	%	1,5
<p>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 EN 12871 has to be consulted. This can result in having to comply with additional requirements.</p> <p>NOTE 1 The values in this table for both bending strength and modulus of elasticity shall apply to test results obtained in any direction in the plane of the panel.</p> <p>NOTE 2 With the exception of thickness swelling and the cyclic test, the values given in this table are characterized by moisture content in the material corresponding to a relative humidity of 65 % and a temperature of 20 °C.</p>			

3.3 Supplementary properties

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