

**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 exterior
conditions

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 634-2:1999 sisaldab Euroopa standardi EN 634-2:1996 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 634-2:1999 consists of the English text of the European standard EN 634-2:1996.</p> <p>This document is endorsed on 23.11.1999 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:</p> <p>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.</p> <p>MÄRKUS: Tsementsideainega puitlaastplaat ei sisalda asbestkiudu.</p>	<p>Scope:</p>
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Võtmesõnad: eristus kiri, keskkond, markeerimine, materjalid, näitajad, portlandtsemendid, puitlaastplaadid, puitplaadid, sideained, tsemendid, vastavusteimid

ICS 79.060.20

Descriptors: Wood-based panel products, particleboard, requirements.

English version

Cement-bonded particleboards

Specifications

**Part 2: Requirements for OPC bonded particleboards
for use in dry, humid and exterior conditions**

Panneaux de particules liées au ciment –
Exigences – Partie 2: Exigences pour les
panneaux de particules liées au ciment
Portland ordinaire utilisés en milieu 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 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.

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

CEN

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

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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.

This Standard is one of a series specifying requirements for cement-bonded particleboards. The other part of this series is listed in clause 2.

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.

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 exterior²⁾ conditions. Additional information on supplementary properties for certain applications is also given.

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

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 bending strength

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 320

Fibreboards – Determination of resistance to axial withdrawal of screws

EN 321

Fibreboards – Cyclic tests in humid 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 634-1:1995

Cement-bonded particleboards – Specifications – Part 1: General requirements

¹⁾ Humid conditions are defined in terms of service class 2 of ENV 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 exceeding 85 % only for 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⁾ Exterior conditions are defined in terms of service class 3 of ENV 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 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

prEN 1156

Wood-based panels – Determination of duration of load and creep factors

prEN 1328

Cement-bonded particleboards – Determination of frost resistance

3 Requirements

3.1 General

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

The requirements in Table 1 shall be met by 5 percentile values (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.

3.2 Specified properties

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

NOTE 1: The values in Table 1 for both bending strength and modulus of elasticity shall apply to test results obtained in any direction in the plane of the panel.

NOTE 2: With the exception of thickness swelling and the cyclic test, the values given in Table 1 are characterised by a moisture content in the material corresponding to a relative humidity of 65 % and a temperature of 20 °C.

NOTE 3: 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 has also to be consulted. This can result in additional requirements having to be complied with.