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Houtachtige platen - Gedragingsvoorschriften en -eisen voor dragende platen voor gebruik in vloeren, wanden en daken

Panneaux à base de bois - Spécifications et exigences fonctionnelles pour panneaux travaillants utilisés en planchers, murs et toitures

Wood-based panels - Performance specifications and requirements for load bearing boards for use in floors, walls and roofs

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Deze Europese norm EN 12871 : 2001 heeft de status van een Belgische norm.

Deze Europese norm bestaat in drie officiële versies (Duits, Engels, Frans).



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Indice de classement : B 16

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pour panneaux travaillants utilisés en planchers, murs et toitures**

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La présente norme européenne existe en trois versions officielles (allemand, anglais, français).



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English version

Wood-based panels - Performance specifications and requirements for load bearing boards for use in floors, walls and roofs

Panneaux à base de bois - Spécifications et exigences fonctionnelles pour panneaux travaillants utilisés en planchers, murs et toitures

Holzwerkstoffe - Leistungsspezifikationen und Anforderungen für tragende Platten zur Verwendung in Fußböden, Wänden und Dächern

This European Standard was approved by CEN on 19 February 2001.

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 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 Management Centre 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.



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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 November 2001, and conflicting national standards shall be withdrawn at the latest by November 2001.

This European Standard combines the drafts published as prEN 12869-1:1997, prEN 12869-2:1997, prEN 12870-1:1997, prEN 12870-2:1997, prEN 12871-1:1997, prEN 12872-2:1997 and prEN 12871-3:1997.

In the structural use of wood-based panels there are two methods of achieving satisfactory performance of the completed structure.

The first approach is to design the structure by calculation using structural characteristic values (contained in EN 12369 or derived according to EN 1058 and EN 789), where there are no requirements for impact and concentrated loads, or where compliance with these requirements can be demonstrated. Subject to the above limitations, the method can be applied to any structure, but because of the method of generation of the various assumptions used in design calculation, the derived design may not be optimized in terms of performance.

The second approach is to design the structure by prototype testing in order to satisfy the requirements for both impact and concentrated loading. This test work is complemented by calculation in order to satisfy the requirement for uniformly distributed load. This approach yields a more optimised design, the results from the testing apply only to that one specific design.

This standard relates specifically to the second approach, namely, design by prototype testing. Thus, this standard sets out the specifications and requirements for load bearing wood-based panels used as structural floor or roof decking or wall sheathing.

No existing European Standard is superseded.

The annexes A and C are normative. Annex B is informative.

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.

1 Scope

This European Standard sets out the performance specifications and requirements for load bearing wood-based panels used as structural decking and sheathing in floors, roofs and walls, and provides a method of demonstrating compliance based on prototype testing.

Reference is also made to general performance requirements for loads not defined in ENV 1991-1, ENV 1991-2-1 or ENV 1995-1-1.

Uniformly distributed loads in accordance with ENV 1991-2-1 are not included in this standard; but can be verified by calculation according to ENV 1995-1-1, see clause 6.

The concept of punching shear is included within this standard.

This European Standard also specifies requirements for additional properties for load bearing wood-based panels used as structural decking and sheathing in floors, roofs and walls, which are not given in other European Standards.

2 Normative references

See annex A.

3 Terms and definitions

For the purposes of this standard the following terms and definitions apply:

3.1 service classes

3.1.1 service class 1

is characterized by a moisture content in the materials corresponding to a temperature of 20 °C and the relative humidity of the surrounding air only exceeding 65 % for a few weeks per year [ENV 1995-1-1]

3.1.2 service class 2

is characterized by a moisture content in the materials corresponding to a temperature of 20 °C and the relative humidity of the surrounding air only exceeding 85 % for a few weeks per year [ENV 1995-1-1]

3.1.3 service class 3

climatic conditions leading to higher moisture contents than in service class 2 [ENV 1995-1-1]

3.2 serviceability limit state

see ENV 1995-1-1 and ENV 1991-1

3.3 ultimate limit state

see ENV 1995-1-1 and ENV 1991-1

3.4 characteristic value

see ENV 1995-1-1 and ENV 1991-1