



SLOVENSKI STANDARD
oSIST prEN 12369-2:2009
01-september-2009

Wood-based panels - Characteristic values for structural design - Part 2: Plywood

Wood-based panels - Characteristic values for structural design - Part 2: Plywood

Holzwerkstoffe - Charakteristische Werte für die Berechnung und Bemessung von Holzbauwerken - Teil 2: Sperrholz

Panneaux à base de bois - Valeurs caractéristiques pour la conception des structures - Partie 2: Contreplaqué

Ta slovenski standard je istoveten z: prEN 12369-2

SIST EN 12369-2:2011

<https://standards.iteh.ai/catalog/standards/sist/56fee250-9a51-4533-9fa3-12f79e204308/sist-en-12369-2-2011>

ICS:

79.060.10 Vežan les Plywood

oSIST prEN 12369-2:2009

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 12369-2

June 2009

ICS 79.060.10

Will supersede EN 12369-2:2004

English Version

Wood-based panels - Characteristic values for structural design - Part 2: Plywood

Panneaux à base de bois - Valeurs caractéristiques pour la
conception des structures - Partie 2: Contreplaqué

Holzwerkstoffe - Charakteristische Werte für die
Berechnung und Bemessung von Holzbauwerken - Teil 2:
Sperrholz

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 112.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

CEN members are the national standards bodies of 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.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

[SIST EN 12369-2:2011](https://standards.iteh.ai/catalog/standards/sist/56fee250-9a51-4533-9fa3-12f79e204308/sist-en-12369-2-2011)

<https://standards.iteh.ai/catalog/standards/sist/56fee250-9a51-4533-9fa3-12f79e204308/sist-en-12369-2-2011>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

| | |
|---|----|
| Foreword..... | 3 |
| 1 Scope | 4 |
| 2 Normative references | 4 |
| 3 Terms and definitions | 5 |
| 4 Symbols | 6 |
| 4.1 Main symbols | 6 |
| 4.2 Subscripts | 6 |
| 5 General..... | 7 |
| 6 Characteristic values for plywood | 7 |
| 6.1 Introduction | 7 |
| 6.2 Bending, tension and compression..... | 8 |
| 6.2.1 General..... | 8 |
| 6.2.2 Strength | 8 |
| 6.2.3 Modulus of elasticity | 9 |
| 6.3 Shear properties | 9 |
| 6.4 Characteristic density | 10 |
| Annex A (informative) Format for the presentation of characteristic values..... | 11 |
| Annex B (informative) Information about the conversion factors..... | 12 |
| B.1 Tension – Compression | 12 |
| B.1.1 General..... | 12 |
| B.1.2 Strength | 12 |
| B.1.3 Modulus of elasticity | 12 |
| B.2 Shear properties | 13 |
| Bibliography | 15 |

<https://standards.iteh.ai/catalog/standards/sist/56fee250-9a51-4533-9fa3-12f79e204308/sist-en-12369-2-2011>

Foreword

This document (prEN 12369-2:2009) has been prepared by Technical Committee CEN/TC 112 "Wood-based panels", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 12369-2:2004.

This standard is intended to be used in conjunction with EN 1995-1-1.

Compared to EN 12369-2:2004, the following changes have been made:

- a) The scope has been limited;
- b) Where no values were available, this document provides, for tension and compression, strength and stiffness values derived from bending classes in each direction and taking the surface appearance class into account;
- c) This document gives more relevant values for shear properties in relation to the density of the wood species in the panel;
- d) The range of density, from 350 to 750 kg/m³, corresponds to data used to determine the correlation between these shear properties and density ;
- e) The characteristic value of the density is determined by using the results of Factory Production Control (FPC) .

This European Standard is one of a series specifying characteristic values of wood-based panels for structural design. The other parts of this series are listed in the Bibliography.

Annexes A and B are informative.

[SIST EN 12369-2:2011](https://standards.itc.europa.eu/standards/sist/56fee250-9a51-4533-9fa3-12f79e204308/sist-en-12369-2-2011)

<https://standards.itc.europa.eu/standards/sist/56fee250-9a51-4533-9fa3-12f79e204308/sist-en-12369-2-2011>

1 Scope

This European standard provides information on the characteristic values for use in designing structures incorporating wood-based panels. The characteristic values given are as defined in EN 1995-1-1.

This standard includes the characteristic values of the mechanical properties for plywood complying with EN 636 in bending, tension, compression, panel shear and planar shear. EN 636 classifies bending properties into two sets of classes, one for stiffness and another for strength. Stiffness and strength in tension and compression are related to the same properties in bending.

For shear properties, fixed values have been substituted by correlation to density.

Where optimised values are needed, the characteristic values shall be determined directly by testing in accordance with EN 789 and EN 14358 or by combination of testing according to the latter two standards and calculation according to ENV 14272.

This standard applies to panels complying with the three following conditions:

- 5 layers or more and 6 mm and more;
- the ratio of the cumulated thickness along one direction upon the cumulated thickness across the same direction shall not exceed 2,5;
- wood species with a mean density greater than 350 kg/m³ and not exceeding 750 kg/m³.

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 bending strength*

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

EN 636, *Plywood — Specifications*

EN 635-2, *Plywood — Classification by surface appearance — Part 2: Hardwood*

EN 635-3, *Plywood — Classification by surface appearance — Part 3: Softwood*

EN 789, *Timber structures — Test methods — Determination of characteristic values of mechanical properties and density*

EN 1995-1-1, *Eurocode 5, Design of timber structures — Part 1.1: General rules for building*

EN 14358, *Timber structures — Calculation of characteristic 5-percentile values and acceptance criteria for a sample*

prEN 14272, *Plywood — Calculation method for some mechanical properties*

ISO 3131, *Wood — Determination of density for physical and mechanical test.*