

Wood-based panels — Characteristic values for structural design —

Part 2: Plywood

The European Standard EN 12369-2:2004 has the status of a
British Standard

ICS 79.060.10

National foreword

This British Standard is the official English language version of EN 12369-2:2004.
The UK participation in its preparation was entrusted to Technical Committee B/541, Wood-based panels, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.
BS EN 12369-2 provides information on characteristic values for use in designing timber structures incorporating plywood in a similar way to the data for OSB, particleboard and various types of fibreboard given in BS EN 12369-1.

Users should be aware that the terminology and notation used in BS EN 12369-2 is different from that previously used for plywood in BS 5268-2. The symbols used are explained in 3.2 and it should be noted that the subscripts “0” and “90” are used to indicate the major and minor axes of the panels — for plywood these are the axes parallel and perpendicular to the grain of the face veneer respectively.

Bending properties are for flatwise bending only and no corresponding values are given for edgewise bending. The values are given as a series of strength and modulus classes, linked to the corresponding classes in the product standard, BS EN 636. Separate classes should be assigned for the parallel and perpendicular directions.

The tension and compression properties are not given as these vary significantly with lay-up and are not part of the manufacturer’s quality control procedures. Reference is given to other standards for methods of derivation of in-plane tension and compression properties by testing or by calculation for a known lay-up. No procedures are given for stress perpendicular to the plane of the panel.

The term “panel shear” refers to in-plane shear that tends to distort a rectangular section into a lozenge shape, as can occur in the web of an “I” beam. Planar shear refers to the in-plane shear stress that occurs in flatwise bending and at the interface of glued components. In this case the stresses tend to cause the layers of the panel to slide over each other. In BS 5268-2 this property is referred to as “rolling shear”. Conservative shear properties are given in Table 4, or alternatively values can be derived by testing.

The characteristic values given are intended for use with Eurocode 5. These values can be converted to permissible stresses for use with BS 5268-2 using modification factors given in 4.6 of that standard.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 11 and a back cover.

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Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document (EN 12369-2:2004) 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 2004, and conflicting national standards shall be withdrawn at the latest by August 2004.

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

NOTE prEN 1995-1-1 is in preparation.

Annex A 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, 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.