

Wood-based panels — Determination of characteristic 5- percentile values and characteristic mean values

ICS 79.060.01

National foreword

This British Standard is the UK implementation of EN 1058:2009. It supersedes BS EN 1058:1996 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/541, Wood based panels.

A list of organizations represented on this committee can be obtained on request to its secretary.

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 May 2010.
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ISBN 978 0 580 60357 0

Amendments/corrigenda issued since publication

Date	Comments

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1058

November 2009

ICS 79.060.01

Supersedes EN 1058:1995

English Version

Wood-based panels - Determination of characteristic 5-percentile values and characteristic mean values

Panneaux à base de bois - Détermination des valeurs caractéristiques correspondant au fractile à 5 % d'exclusion et des valeurs caractéristiques moyennes

Holzwerkstoffe - Bestimmung der charakteristischen 5%-Quantil Werte und charakteristischen Mittelwerte

This European Standard was approved by CEN on 3 October 2009.

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Ref. No. EN 1058:2009: E

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Foreword

This document (EN 1058:2009) 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of an identical text or by endorsement, at the latest by May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

This document supersedes EN 1058:1995, the statistical evaluation of which had to be corrected. The statistical evaluation follows the principles of Annex D of EN 1990:2002, of EN 1995-1-1:1993, *Eurocode 5: Design of timber structures – Part 1-1: General – Common rules and rules for buildings*, and of EN 14358:2006, *Timber structures – Calculation of characteristic 5-percentile values and acceptance criteria for a sample*.

Compared to EN 1058:1995 the following modifications have been made:

- a) For the determination of strength and stiffness properties for log-normal distributed test data reference is made to EN 14358;
- b) The calculation of the 5-percentile characteristic value of log-normal distributed test data according to EN 14358 is described in Annex A and is explained by examples;
- c) The calculation of the characteristic mean value (50-percentile value) of normal distributed test data is described in Annex B and is explained by examples.

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1 Scope

On the basis of test results from wood-based panel products for structural purposes, this European Standard specifies a method for the determination of:

- characteristic 5-percentile values of mechanical properties under the assumption of a log-normal distribution of the test data according to EN 14358; and
- characteristic mean values (50-percentile values) of physical properties under the assumption of a normal distribution of the test data.

Test data should be determined from tests using the test methods outlined in EN 789.

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 326-1, *Wood-based panels — Sampling, cutting and inspection — Part 1: Sampling and cutting of test pieces and expression of test results*

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

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

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
characteristic value
value of a material property which is defined as a fractile of the distribution of that property within the total population of that material

NOTE For all strength properties, this fractile is the fifth percentile. For stiffness properties as well as physical properties, two different characteristic values can be used: the fifth percentile and the mean value.

3.2
panel
piece of wood-based sheet material large enough to permit the cutting of test pieces

3.3
reference population
wood-based panels for which the characteristic values are relevant

3.4
production site
any single production line