

Durability of wood and wood-based products — Wood-based panels — Method of test for determining the resistance against wood-destroying basidiomycetes

ICS 71.100.50,79.040

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Committees responsible for this Draft for Development

The preparation of this Draft for Development was entrusted to Technical Committee B/515, Wood preservation, upon which the following bodies were represented:

- British Telecommunications plc
- British Wood Preserving and Damp-proofing Association
- Chemical Industries' Association
- Creosote Council
- Department of the Environment (Building Research Establishment)
- Timber Research and Development Association
- Timber Trade Federation
- Wood Panel Industries Federation

The following bodies were also represented in the drafting of the prestandard, through subcommittees and panels:

- Association of Consulting Scientists
- Council of the Forest Industries of British Columbia
- Imperial College of Science and Technology
- Institute of Wood Science

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National foreword

This Draft for Development has been prepared by Technical Committee B/515 and is the English language version of ENV 12038:1996 *Durability of wood and wood-based products — Wood-based panels — Method of test for determining the resistance against wood-destroying basidiomycetes*, published by the European Committee for Standardization (CEN). ENV 12038:1996 was produced as a result of international discussion in which the United Kingdom participated.

The procedures described in this Draft for Development are intended to be carried out by appropriately qualified and experienced persons or other suitably trained and/or supervised personnel. Normal safety precautions should be used throughout the use of method.

Cross-reference

Publication referred to Corresponding British Standard

ISO 3696:1987	BS EN ISO 3696:1995 <i>Water for analytical laboratory use. Specification and test methods</i>
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It is being issued in the Draft for Development series of publications and is of a provisional nature because there is at present insufficient experience in the use of the test method. It should be applied on this provisional basis, so that information and experience of its practical application may be obtained and reported to the responsible CEN Technical Committee. Users of this Draft for Development are invited to comment on its technical content, ease of use and any ambiguities or anomalies. These comments will be taken into account when preparing the UK national response to CEN on the question of whether the ENV can be converted to an EN. Comments should be sent in writing to the Secretary of BSI Technical Committee B/515 at BSI, 389 Chiswick High Road, London, W4 4AL, quoting this Draft for Development, the relevant clause number and a proposed revision, within 2 years of the issue of this Draft for Development.

This publication is not to be regarded as a British Standard.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the ENV title page, pages 2 to 16, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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Descriptors: Wood, wooden boards, wood preservatives, pest control, fungi, basidiomycetes, prevention, laboratory tests, effectiveness

English version

Durability of wood and wood-based products — Wood-based panels — Method of test for determining the resistance against wood-destroying basidiomycetes

Durabilité du bois et des matériaux dérivés du
bois — Panneaux à base de bois — Méthode
d'essai pour déterminer la résistance aux
champignons basidiomycètes lignivores

Dauerhaftigkeit von Holz und
Holzwerkstoffen — Holzwerkstoffplatten —
Bestimmung der Beständigkeit gegen
holzerstörende Basidiomyceten

This European Prestandard (ENV) was approved by CEN on 1996-01-25 as a prospective standard for provisional application. The period of validity of this ENV is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the ENV can be converted into an European Standard (EN).

CEN members are required to announce the existence of this ENV in the same way for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

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CEN

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

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Prestandard has been prepared by Technical Committee CEN/TC 38 “Durability of wood and wood-based products”, the secretariat of which is held by AFNOR.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this European Prestandard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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0 Introduction

This European Prestandard describes a laboratory test method in which small samples of the wood-based panel product under test are exposed to attack by a range of wood-destroying basidiomycete fungi in pure culture. The thickness of the test specimens varies, since it is dictated by the thickness of the wood-based panel product under test. In order to make comparisons of the decay resistance of wood-based panel products of different thicknesses, solid wood specimens of the same dimensions as the wood-based panel product test specimens are included. The effect of constituents giving temporary protection is avoided by testing after preconditioning by leaching. The test method also includes a minimum moisture uptake requirement.

The test method provides specimens suitable for subsequent assessment by methods other than mass loss such as loss of internal bond strength.

The procedures described in this prestandard method are intended to be carried out by suitably trained and/or supervised specialists. Appropriate safety precautions shall be observed throughout the use of this prestandard.

1 Scope

This European Prestandard specifies a method for assessing the resistance of wood-based panel products to attack by wood-destroying basidiomycete fungi growing in pure culture.

The method is applicable to uncoated, rigid wood-based panel products. It is applicable to the determination of the decay resistance of wood-based panel products:

- made from naturally durable materials;
- made from materials treated with preservatives prior to manufacture;
- treated with a preservative which is introduced during manufacture, for example as an additive to the adhesive;
- treated with preservative after manufacture.

NOTE This method may be used in conjunction with an appropriate ageing procedure, for example EN 73 or EN 84.

2 Normative references

This European Prestandard 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 Prestandard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 84, *Wood preservatives — Accelerated ageing of treated wood prior to biological testing — Leaching procedure*.

EN 113, *Wood preservatives — Method of test for determining the protective effectiveness against wood destroying basidiomycetes — Determination of the toxic values*.

ISO 3696, *Water for analytical laboratory use — Specification and test methods*.

3 Definitions

For the purposes of this Standard, the following definition applies

3.1

supplier

the sponsor of the test

4 Principle

Specimens prepared from the wood-based panel product(s) under test, after pre-conditioning, and control specimens of defined function are exposed to attack by pure cultures of wood-destroying basidiomycete fungi.

After a prescribed period of incubation under defined conditions, the loss in dry mass of the specimens is used as the criterion for determining the extent of attack. This, in comparison with the loss in mass of the size control specimens, is used to estimate the resistance of the wood-based panel product(s) to attack by the test fungi.

5 Test materials

5.1 Biological material

5.1.1 Test fungi

5.1.1.1 Obligatory test fungi for all types of panel products (see also Annex A):

— *Coniophora puteana* (Schumacher ex Fries)
Karsten (BAM Ebw. 15)

Loss in mass (%) in 16 weeks of Scots pine sapwood specimens: minimum: 20 % (*m/m*).