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BSI Standards Publication

Durability of wood and wood-based products — Test method against wood destroying basidiomycetes

Part 1: Assessment of biocidal efficacy of wood preservatives

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National foreword

This British Standard is the UK implementation of EN 113-1:2020. Together with BS EN 113-2:2020, it supersedes BS EN 113:1997, which will be withdrawn on publication of BS EN 113-2:2020.

The UK participation in its preparation was entrusted to Technical Committee B/515, Wood preservation.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Durability of wood and wood-based products - Test method against wood destroying basidiomycetes - Part 1: Assessment of biocidal efficacy of wood preservatives

Durabilité du bois et des matériaux dérivés du bois -
Méthode d'essai vis-à-vis des champignons
basidiomycètes - Partie 1 : Détermination de l'efficacité
protectrice de produits de préservation

Dauerhaftigkeit von Holz und Holzprodukten -
Prüfverfahren gegen Holz zerstörende Basidiomyceten
- Teil 1: Bewertung der bioziden Wirksamkeit von
Holzschutzmitteln

This European Standard was approved by CEN on 2 November 2020.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 113-1:2020) has been prepared by Technical Committee CEN/TC 38 "Durability of wood and wood-based products", the secretariat of which is held by AFNOR.

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 June 2021, and conflicting national standards shall be withdrawn at the latest by June 2021.

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

This document supersedes EN 113:1996 and EN 113:1996/A1:2004.

Test results obtained with earlier versions of EN 113 are still valid.

Compared to EN 113:1996 and EN 113:1996/A1:2004 the following major changes have been introduced:

- This is now a first part of EN 113 corresponding to the EN 113:1996 document. Other parts relate to a different scope.
- The title is changed;
- The obligatory fungi are indicated differently;
- The calculation of a correction factor (C) has been differently included;
- The methods for sterilization are updated;
- All annexes are informative except Annex B;
- Some additional validity requirements are introduced for control specimens.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

This document describes a laboratory method of test, which gives a basis for the assessment of effectiveness of a wood preservative against wood destroying basidiomycetes. By using this method it is possible to determine the loading at which impregnated wood of a susceptible species can be regarded as adequately protected under the conditions of test.

This laboratory method provides one criterion by which the efficacy of a product can be assessed, and this criterion should be used to judge the likely effectiveness of the preservative taking into account the methods of application likely to be used.

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

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1 Scope

This document specifies a method for determining the efficacy of wood preservatives applied to wood by penetration treatment against wood destroying basidiomycetes cultured on a malt extract agar medium.

The method is applicable to formulated products or to their active ingredients.

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

Annex A (informative) contains an example of a test report.

Annex B (normative) contains some methods of sterilization.

Annex C (informative) contains information on the test vessels.

Annex D (informative) contains information on test fungi.

Annex E (informative) contains a recommended but non-comprehensive list of optional fungi.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

supplier

sponsor of a biological test of a wood preservative

4 Principles

Test specimens of a susceptible wood species impregnated with increasing concentrations of wood preservative solutions and reference wood test specimens are exposed to attack by pure cultures of basidiomycetes. After a prescribed period of incubation under defined conditions, the percentage loss in dry mass of the test specimens is used to establish the biocidal efficacy of the product under test.

5 Test material and apparatus

5.1 Biological material

5.1.1 General

The test fungi to be used as follows:

5.1.2 Obligatory fungi in all cases (see also Annex D)

- *Coniophora puteana* (Schumach.) P. Karst (BAM Ebw. 15) on softwood.

Loss in mass in percentage in 16 weeks of Scots pine sapwood specimens: a mass fraction of a minimum 20 %.