



BSI Standards Publication

**Durability of wood and
wood-based products —
Assessment of the
effectiveness of a masonry
fungicide to prevent growth
into wood of Dry Rot *Serpula
lacrymans* (Schumacher ex Fries)
S.F. Gray — Laboratory method**

National foreword

This Published Document is the UK implementation of CEN/TS 12404:2015. It supersedes DD ENV 12404:1997 which is withdrawn.

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 secretary.

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

© The British Standards Institution 2015.

Published by BSI Standards Limited 2015

ISBN 978 0 580 86284 7

ICS 71.100.50

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 March 2015.

Amendments/corrigenda issued since publication

Date	Text affected
-------------	----------------------

English Version

Durability of wood and wood-based products - Assessment of the effectiveness of a masonry fungicide to prevent growth into wood of Dry Rot *Serpula lacrymans* (Schumacher ex Fries) S.F. Gray - Laboratory method

Durabilité du bois et des matériaux dérivés du bois -
Évaluation de l'efficacité d'un fongicide de maçonnerie pour
empêcher le développement dans le bois de la mērule
Serpula lacrymans (Schumacher ex Fries) S.F. Gray -
Méthode de laboratoire

Dauerhaftigkeit von Holz und Holzprodukten - Bestimmung
der Wirksamkeit eines Schutzmittels gegen das
Überwachsen von Echtem Hausschwamm *Serpula
lacrymans* (Schumacher ex Fries) S.F. Gray vom
Mauerwerk auf das Holz - Laboratoriumsverfahren

This Technical Specification (CEN/TS) was approved by CEN on 6 October 2014 for provisional application.

The period of validity of this CEN/TS 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 CEN/TS can be converted into a European Standard.

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

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Principle.....	5
5 Test materials.....	6
5.1 Test fungus.....	6
5.1.1 Obligatory test fungus	6
5.1.2 Optional test fungi	6
5.1.3 Maintenance of strains	6
5.2 Products and reagents.....	6
5.2.1 Water, distilled or deionized, conform to grade 3 of EN ISO 3696.	6
5.2.2 Malt – mineral salt – agar culture medium; consisting:.....	6
5.3 Apparatus	7
5.3.1 Culture vessels	7
6 Sample of the preservative	8
7 Mortar test specimen.....	9
7.1 Preparation of mortar	9
7.2 Preparation of mortar test specimen	9
7.3 Curing of mortar test specimen	11
7.4 Leaching of mortar test specimen	11
7.5 Number and distribution of mortar test specimens	11
8 Wood test specimens.....	12
8.1 Species of wood.....	12
8.2 Quality of wood.....	12
8.3 Provision of wood test specimens.....	12
8.4 Dimensions of wood test specimens.....	12
9 Procedure	12
9.1 Culturing the test fungus	12
9.2 Treatment of mortar test specimens.....	12
9.3 Preparation of wood test specimens	12
9.4 Sterilization procedures	13
9.5 Exposure to fungus	13
9.6 Examination of the mortar test specimens	13
9.7 Validity of test	14
10 Statement of the results	15
11 Test report	15
Annex A (informative) Test fungi	16
Annex B (informative) Methods of sterilization	18
Annex C (informative) Example of a test report	20

Foreword

This document (CEN/TS 12404:2015) has been prepared by Technical Committee CEN/TC 38 “Durability of wood and wood-based products”, the secretariat of which is held by AFNOR.

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 supersedes ENV 12404:1997.

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

Introduction

This Technical Specification describes a laboratory method of test for the assessment of the effectiveness of a masonry fungicide applied to masonry for the prevention of the growth of dry rot, *Serpula lacrymans* (Schumacher ex Fries) S.F. Gray into wood.

This laboratory method enables the determination of the concentration of a preservative within mortar which could prevent the dry rot fungus from growing through a given mortar layer treated with this preservative.

1 Scope

This Technical Specification specifies a method for determining the performance of a preservative, applied to the upper surface of the mortar test specimens, in preventing the growth of dry rot through the treated mortar when exposed to the test fungus.

This method is only applicable to masonry fungicides applied as a true solution of the preservative in water or dilute oil in water emulsion. It is not applicable to rods, pastes and other similar preservative types. This method is applicable to preservatives applied to masonry by brushing, spraying and/or injection techniques or mixed into rendering and plastering mortar for masonry.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 113:1996, *Wood preservatives - Test method for determining the protective effectiveness against wood destroying basidiomycetes - Determination of the toxic values*

EN 413-1, *Masonry cement - Part 1: Composition, specifications and conformity criteria*

EN 459-1, *Building lime - Part 1: Definitions, specifications and conformity criteria*

EN 599-1, *Durability of wood and wood-based products - Efficacy of preventive wood preservatives as determined by biological tests - Part 1: Specification according to use class*

EN ISO 3696, *Water for analytical laboratory use - Specification and test methods (ISO 3696)*

3 Terms and definitions

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

3.1

masonry fungicide

fungicidal/fungistatic product applied to masonry and other mineral construction materials to prevent the growth of dry rot through or over the treated material

3.2

performance

behaviour of the preservative product in terms of its effectiveness in test

3.3

preservative

formulated masonry fungicide in the form received from the supplier for the test

3.4

supplier

sponsor of the test

4 Principle

The preservative to be tested is applied by pipette (or in accordance with the sponsor's instruction) to the upper surface of mortar test specimens. The mortar test specimens are contained in rigid tubes and an untreated wooden sample is placed on top of these mortar test specimens. The bases of the mortar specimens are exposed to dry rot attack for a given time. The assessment of the performance of the test