# TECHNICAL SPECIFICATION SPÉCIFICATION TECHNIQUE TECHNISCHE SPEZIFIKATION

**CEN/TS 839** 

March 2008

ICS 71.100.50

Supersedes ENV 839:2002

### **English Version**

# Wood preservatives - Determination of the protective effectiveness against wood destroying basidiomycetes - Application by surface treatment

Produits de préservation du bois - Détermination de l'efficacité protectrice vis-à-vis des champignons basidiomycètes lignivores - Application par traitement de surface Holzschutzmittel - Bestimmung der vorbeugenden Wirksamkeit gegen holzzerstörende Basidiomyceten - Anwendung mit Oberflächenverfahren

This Technical Specification (CEN/TS) was approved by CEN on 5 November 2007 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

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

COIIL		age
Foreword3		
	oction	
1	Scope	
2	Normative references	
3	Terms and definitions	5
4	Principle	
5	Test materials and apparatus	
5.1	Biological material	6
5.2 5.3	Products and reagents	
5.5 6	Sampling of the preservative	
7	Test specimens	
, 7.1	Species of wood	8
7.2	Wood quality	9
7.3 7.4	Provision of the test specimens	
7.4 7.5	Dimensions and density of test specimens  Number and distribution of test specimens	
В	Procedure	
8.1	Preparation of the untreated test specimens	10 10
8.2	Preparation of the treated test specimens	10
8.3	Exposure to fungi	
8.4 8.5	Culture conditions and duration of test	
	Statement of results	
9	Test report	
10	·	
	A (informative) Test fungi	15
A.1 A.2	General information on maintenance and acquisition of test strains	
A.3	Information regarding obligatory fungi	
Annex	B (normative) Methods of sterilisation	18
B.1	lonising radiation	18
B.2	Epoxyethane-based sterilant	
B.3 B.4	Epoxypropane-based sterilant	
	C (informative) Examination of colonisation	
	D (informative) Example of a test report	
		∠3
Annex	E (informative) Environmental, health and safety precautions within chemical/biological laboratory	26
Biblion	raphy	
	·	-

# **Foreword**

This document (CEN/TS 839:2008) 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 839:2002.

Significant technical differences between this standard and ENV 839:2002 are as follows:

- a) change of assessment from, visual examination for decay supplemented with culturing to assess colonisation of the interior, to determination of loss in mass due to fungal decay as well as visual examination for decay of the surface and the interior of the test specimens. The visual examination is now included as an optional means of assessment to determine colonisation and that this requires an additional series of test specimens (Annex C).
- b) addition in 7.5 of treated check test specimens for calculation of the correction value;
- c) taking into account of the terms given in EN 1001-1and the definitions of EN 1001-2;
- d) Introduction of an informative Annex E to take account of consideration for minimisation of environmental and health hazards caused by the use of this biological test.

This standard includes Annexes A, C, D and E that are informative and an Annex B that is normative.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

# Introduction

This European Standard specifies a laboratory method of test which gives a basis for assessing the effectiveness of a wood preservative, when applied as a surface treatment, against wood destroying basidiomycetes. It tests whether the applied treatment is able to prevent the penetration of the fungi into the untreated interior of the test specimens under the conditions of test.

This laboratory method provides one criterion by which the effectiveness of a product can be assessed. In making this assessment, the methods by which the preservative may be applied should be taken into account. It is also recommended that results from this test should be supplemented by those from other relevant tests and above all by practical experience.

The procedures described in this standard method are intended to be carried out by suitably trained and/or supervised specialists.

Suitable precautions should include the use of separate rooms, areas within rooms, extraction facilities, De l'albrevier de la company d conditioning chambers and special training for personnel. Also see Annex E for environmental, health and safety precautions.

# 1 Scope

This European Standard specifies a method of test for the determination of the protective effectiveness of a wood preservative, applied to the surface of the wood, against wood destroying basidiomycetes cultured on an agar medium.

The method is applicable to all products which are to be applied by superficial application processes. This includes :

- organic solvent-based wood preservatives; or
- organic water-dispersible formulations, as supplied or as prepared in the laboratory by dilution of concentrates; or
- water-soluble products; or
- chemicals which are being studied as active ingredients for application by superficial processes.

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

## 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 ISO 3696, Water for analytical laboratory use - Specification and test methods (ISO 3696:1987).

# 3 Terms and definitions

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

### 3.1

#### representative sample

sample having its physical and/or chemical characteristics identical to the volumetric average characteristics of the total volume being sampled.

[EN 1001-2,4.71]

### 3.2

#### supplier

sponsor of the test (person or company providing the sample of wood preservative to be tested). [Adapted from EN 1001-2,4.83]

#### 3.3

# superficial application process

process which does not include particular features or procedures intended to overcome the natural resistance of wood to penetration of a wood preservative in its ready to use form

[EN 1001-2,4.82]