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Träskydd – Bestämning av skyddsverkan mot rötsvampar vid applicering av träskyddsmedel genom ytbehandling

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



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Denna standard ersätter SIS-CEN/TS 839:2008, utgåva 1.

The European Standard EN 839:2014 has the status of a Swedish Standard. This document contains the official version of EN 839:2014.

This standard supersedes the Swedish Standard SIS-CEN/TS 839:2008, edition 1.

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EUROPEAN STANDARD

EN 839

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2014

ICS 71.100.50

Supersedes CEN/TS 839:2008

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 Holz zerstörende Basidiomyceten - Anwendung mit Oberflächenverfahren

This European Standard was approved by CEN on 30 August 2014.

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Foreword

This document (EN 839:2014) 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of an identical text or by endorsement, at the latest by May 2015 and conflicting national standards shall be withdrawn at the latest by May 2015.

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 CEN/TS 839:2008.

In comparison with the previous version of the document, EN 839:2014 has been revised editorially.

This document includes annexes; Annex A, Annex C, Annex D and Annex E are informative and Annex B is normative.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: 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 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 European 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, 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.

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)*

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

[SOURCE: EN 1001-2, 4.71]

**3.2
supplier**
sponsor of the test (person or company providing the sample of wood preservative to be tested)

[SOURCE: EN 1001-2, 4.83, modified]

**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

[SOURCE: EN 1001-2, 4.82]

4 Principle

Several series of test specimens of a susceptible wood species are end-sealed with a material to prevent penetration of the wood preservative under test into the end grain of the test specimens. The end-sealed test specimens are treated with the wood preservative under test using the process and application rate specified by the supplier.

NOTE Suitable application methods are brushing, pipetting and dipping.

The treated test specimens are exposed to attack by basidiomycetes in pure culture. The performance of the test product is assessed in terms of its ability to prevent decay as determined by the maximum acceptable loss in mass and the absence of visible decay of the surface and the untreated interior.

5 Test materials and apparatus

5.1 Biological material

The test fungi to be used are as follows:

5.1.1 Obligatory fungus in all cases

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

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

5.1.2 Obligatory fungus for particular hazards

— *Coriolus versicolor* (Linnaeus) Quélet (CTB 863A) on hardwood and/or on softwood as appropriate.

Loss in mass of beech in 16 weeks: a mass fraction of minimum 20 %.

Loss in mass of Scots pine sapwood in 16 weeks: a mass fraction of minimum 15 %.

5.1.3 Two species to be used compulsorily on the basis of the nature of the test product

For all products except creosote-type products:

— *Poria placenta* (Fries) Cooke *sensu* J. Eriksson (FPRL 280) on softwood.

Loss in mass of Scots pine sapwood in 16 weeks: a mass fraction of minimum 20 %;

— *Gloeophyllum trabeum* (Persoon ex Fries) Murrill (BAM Ebw. 109) on softwood.

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

For creosotes and similar products:

— *Lentinus lepideus* Fries ex Fries (BAM Ebw. 20) on softwood.

Loss in mass of Scots pine sapwood in 16 weeks: a mass fraction of minimum 20 %;

— *Lentinus cyathiformis* (Schaeffer ex Fries) Bresadola (CTB 67-02B) on hardwood.

Loss in mass of beech in 16 weeks: a mass fraction of minimum 20 %.