

SLOVENSKI STANDARD SIST-TS CEN/TS 15082:2008

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Wood preservatives - Determination of the preventive effectiveness against sapstain fungi and mould fungi on freshly sawn timber - Field test

Holzschutzmittel - Bestimmung der vorbeugenden Wirksamkeit gegen Schnittholzbläue und Schimmelpilze auf frisch geschnittenem Holz - Feldversuch

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Produits de préservation du bois - <u>Détermination de l'efficacité préventive contre le</u> bleuissement et les moisissures des sciages frais, Essai de champac-

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Ta slovenski standard je istoveten z: CEN/TS 15082:2005

ICS:

71.100.50 S^{ a ædab Á æÁ æz at Á*e Wood-protecting chemicals

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English version

Wood preservatives - Determination of the preventive effectiveness against sapstain fungi and mould fungi on freshly sawn timber - Field test

Produits de préservation du bois - Détermination de l'efficacité préventive contre le bleuissement et les moisissures des sciages frais - Essai de champ Holzschutzmittel - Bestimmung der vorbeugenden Wirksamkeit gegen Schnittholzbläue und Schimmelpilze auf frisch geschnittenem Holz - Feldversuch

This Technical Specification (CEN/TS) was approved by CEN on 1 March 2005 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.

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

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

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Foreword

This document (CEN/TS 15082:2005) 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 organizations of the following countries are bound to announce this CEN Technical Specification: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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Introduction

This CEN Technical Specification specifies a field test method which gives a basis for assessing the effectiveness of a wood preservative product for the protection of freshly felled timber against colonization by sapstain, mould and other disfiguring micro-organisms. This field test method provides one criterion by which the value of a product can be assessed. If little is known about the activity of a product against sapstain and mould fungi, it is advisable to carry out a preliminary laboratory assessment using a suitable method.

To ensure that colonization of the test specimens will occur, the test should be carried out at sites where sapstain and mould growth occur on untreated susceptible timber species and should be carried out to coincide with the periods of higher fungal activity.

NOTE Periods of highest fungal activity are usually in the spring and autumn. If tests have not been conducted at a location previously, local experience should be sought to determine the most appropriate time of year.

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

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1 Scope

This CEN Technical Specification specifies a field test method for determining the effectiveness of a product in the prevention of the colonization of freshly felled wood by sapstain fungi and mould fungi.

2 Terms and definitions

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

representative sample

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

2.2

supplier

sponsor of the test (person or company providing the sample of wood preservatives to be tested)

Principle

Treatment of several series of test specimens of a susceptible wood species with solutions in which the concentrations of the test product are ranged in a given progression/Treatment of two series of similar test specimens with defined concentrations of a reference formulation. Exposure of these test specimens to colonization by the natural microflora Comparison of the effectiveness of the test product with that of the reference formulation and the untreated control test specimens.

Test material and apparatus SIST-TS CEN/TS 15082:2008 Test material and apparatus SIST-TS CEN/TS 15082:2008

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4.1 Products and reagents

4.1.1 Diluents

For water-soluble or water-diluable preservatives use water of drinkable quality.

4.1.2 Reference formulation

Copper-8-quinolinolate.

NOTE 1 Details on this wood preservative are given in Annex A.

NOTE 2 If experience with another reference formulation is available in field tests in comparison with copper-8quinolinolate, then an equivalent reference formulation can be used.

4.2 Apparatus

- **4.2.1 Dipping tank**, suitable for dipping the size of test specimen used (see 6.3) and the volume of solution (see 7.1.1).
- **4.2.2 Supports**, for the test specimens during exposure. The supports shall be made of the same species of timber as the test specimens or any inert material, that it is to say with no risk or interacting with the test specimens or the reference and test preservative treatments. They shall provide support for the test specimens between 100 mm and 200 mm above the level of the surrounding ground.

NOTE It is convenient to use pallets so that complete stacks can be moved mechanically.

- **4.2.3 Stickers**, to separate the test specimens in the top half of each stack. The stickers shall be made of the same species of timber as the test specimens and treated with the same concentration of preservative, or any inert material, that is to say with no risk of interacting with the test specimens or the reference and test preservative treatments. The stickers shall separate the test specimens by (20 ± 5) mm.
- **4.2.4** Securing bands, to secure the test specimens in the stack during storage.
- **4.2.5 Exposure site,** an open area free from extremes of local environmental influences, especially industrial pollution. The type of surface (e.g. grass, soil or concrete) shall be the same for all stacks in any test and details shall be recorded in the test report. Any vegetation shall be maintained at a level below that of the top of the supports on which the test specimens are stacked (see 4.2.2).

The prevailing meteorological conditions during the test exposure period shall be recorded and included in the test report.

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4.2.6 Ordinary laboratory equipment, including a balance capable of weighing to an accuracy of 1 g.

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5 Sampling of the preservative da85507393/sist-ts-cen-ts-15082-2008

The sample of preservative shall be representative of the product to be tested. Samples shall be stored and handled in accordance with any written recommendations from the supplier.

NOTE For the sampling of preservatives from bulk supplies, the procedure given in EN 212 should be used.

6 Test specimens

6.1 Species of wood

The species of wood to be used shall be susceptible to attack by sapstain and mould fungi.

The reference species should be a susceptible pine species, either Scots pine (*Pinus sylvestris* Linnaeus), Corsican pine (*Pinus nigra* var. *maritime*) or maritime pine (*Pinus pinaster*).

NOTE Tests can be undertaken using other species (e.g. spruce, beech) corresponding to the above characteristics and of particular importance for certain countries, but a reference pine species treated with the reference formulation should also be included to validate the severity of the test. When the test has been conducted using other species (e.g. spruce, beech) the results are only valid for that species.

6.2 Wood quality

The wood shall be free from cracks, stain, decay, insect damage and other defects but sound knots are permitted. The wood shall not have been water-stored, floated, chemically treated or steamed. The wood shall originate from trees felled in spring or autumn. The trees shall be converted within one week of felling.

The wood shall be sapwood containing little resin. A heartwood content of up to 20 % is allowed in each test specimen.

NOTE The heartwood is discounted during evaluation (see 7.4).

6.3 Preparation of the test specimens

Prepare test specimens having a cross-section of 100 mm to 120 mm \times 18 mm to 25 mm and with a sawn finish. The longitudinal faces shall be parallel to the direction of the grain. Make transverse cuts to give test specimens at least 1 000 mm long.

Prepare a sufficient stock solution for the whole test and use within 24 h.

6.4 Dimensions of the test specimens

Measure and record the nominal dimensions of at least 10 test specimens per treatment, and calculate the mean surface area of the test specimens.

NOTE It is convenient if the same specimens are used to establish surface area and uptake of preservative solution (see 6.5).

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6.5 Number and distribution of the test specimens h.ai)

Use at least 110 test specimens for each combination of test preservative or reference formulation concentration and as untreated control test specimens.

NOTE Half the test specimens will be tested whilst close-stacked and half whilst open-stacked (see 7.3). The top and bottom layers of each stack are not assessed.

Select the test specimens at random from the stock. Number at least 10 test specimens per treatment, which will be used to assess uptake of preservative solution.

7 Procedure

7.1 Preparation of treatment solutions

7.1.1 General

Prepare sufficient solution of each concentration to treat all test specimens.

Each treating solution shall be freshly prepared from the reference formulation and test preservative. Solutions shall not be prepared by adjusting previously used solutions.

Dip the boards either singly or in batches in sufficient solution to fully cover them. After dipping no more than 20 boards, make up the original volume in the tank with fresh solution.

NOTE It is desirable to sample the solution in the dipping tank at the beginning, middle and end of the dipping process to allow chemical analysis of the active ingredient. For products known to be very stable in use, a dipping treatment solution of at least 40 l for each series of 110 planks can be used.