

Wood preservatives - Determination of the protective effectiveness against *Anobium punctatum* (De Geer) by egg-laying and larval survival - Part 1: Application by surface treatment (Laboratory method)

Wood preservatives - Determination of the protective effectiveness against *Anobium punctatum* (De Geer) by egg-laying and larval survival - Part 1: Application by surface treatment (Laboratory method)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 49-1:2005 sisaldab Euroopa standardi EN 49-1:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 30.05.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 49-1:2005 consists of the English text of the European standard EN 49-1:2005.</p> <p>This document is endorsed on 30.05.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala: This document specifies a method for the determination of the protective effectiveness or the toxic values of a wood preservative against infestation by <i>Anobium punctatum</i> (De Geer) when the product is applied as a surface treatment to wood.</p>	<p>Scope: This document specifies a method for the determination of the protective effectiveness or the toxic values of a wood preservative against infestation by <i>Anobium punctatum</i> (De Geer) when the product is applied as a surface treatment to wood.</p>
--	--

ICS 71.100.50

Võtmesõnad:

English version

Wood preservatives - Determination of the protective effectiveness against *Anobium punctatum* (De Geer) by egg-laying and larval survival - Part 1: Application by surface treatment (Laboratory method)

Produits de préservation du bois - Détermination de l'efficacité protectrice vis à vis d' *Anobium punctatum* (De Geer) par l'observation de la ponte et du taux de survie des larves - Partie 1: Application par traitement de surface (Méthode de laboratoire)

Holzschutzmittel - Bestimmung der vorbeugenden Wirkung gegenüber *Anobium punctatum* (De Geer) durch Beobachten der Eiablage und des Überlebens von Larven - Teil 1: Oberflächenbehandlung (Laborverfahren)

This European Standard was approved by CEN on 3 February 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 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
6 Sampling.....	7
7 Test specimens.....	7
8 Procedure	8
9 Validity of test	11
10 Expression of results	11
11 Test report	12
Annex A (informative) Example of a test report	14
Annex B (informative) Identification of sex of test insects <i>Anobium punctatum</i>	16
Annex C (informative) Culturing technique for <i>Anobium punctatum</i>	17
Annex D (informative) Environmental, health and safety precautions within chemical/biological laboratory	20
Bibliography.....	21

Foreword

This document (EN 49-1:2005) has been prepared by Technical Committee CEN/TC 38 "Durability of wood and wood-based products", the secretariat of which is held by AFNOR.

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 September 2005, and conflicting national standards shall be withdrawn at the latest by September 2005.

This document supersedes EN 49-1:1992.

This document consists of two parts, Part 1 is required to enable effectiveness assessments of wood preservatives which are intended to be applied by surface treatment and Part 2 those which are intended to be applied by impregnation.

Significant technical differences between this document and EN 49-1:1992 are as follows:

- a) introduction of new harmonised specifications for the test specimens used in the diverse biological tests;
- b) acknowledgement of the terms given in EN 1001-1;
- c) introduction of an informative Annex to take account of consideration for minimisation of environmental and health hazards caused by the use of this biological test.

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

Introduction

This document describes a laboratory method of testing which gives a basis for assessment of the effectiveness of a wood preservative, when applied as a surface treatment, against *Anobium punctatum*. It allows the determination of the concentration at which the product prevents the development of infestation from egg laying. It can also be used with formulations ready for use.

The method simulates conditions which can occur in practice on timber which has been treated some time previously with wood preservative applied by dip, brush or spray and on which eggs of *Anobium punctatum* are laid.

This laboratory method provides one criterion by which the value 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 further recommended that results from this test should be supplemented by those from other appropriate tests, and above all by comparison with practical experience.

When products which are very active at low concentrations are used it is very important to take suitable precautions to isolate and separate, as far as possible, operations involving chemical products, other products, treated wood, laboratory apparatus and clothing. Suitable precautions should include the use of separate rooms, areas within rooms, extraction facilities, conditioning chambers and special training for personnel (see also Annex D for environmental, health and safety precautions).

1 Scope

This document specifies a method for the determination of the protective effectiveness or the toxic values of a wood preservative against infestation by *Anobium punctatum* (De Geer) when the product is applied as a surface treatment to wood.

This method is applicable to:

- water-insoluble chemicals which are being studied as active insecticides,
- organic formulations, as supplied or as prepared in the laboratory by dilution of concentrates,
- organic water-dispersible formulations as supplied or as prepared in the laboratory by dilution of concentrates, and
- water-soluble materials, for example salts.

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)*

ISO 835-1, *Laboratory glassware – Graduated pipettes – Part 1: General requirements*

3 Terms and definitions

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

3.1

representative sample

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

3.2

supplier

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

4 Principle

Depending on the test being carried out either:

- on a set of test specimens of a susceptible wood species that is surface treated with a solution of the preservative, or
- if toxic values are to be determined, on several sets of test specimens of a susceptible wood species that are surface treated with a series of solutions in which the concentration of preservative is ranged in a given progression.