

Wood preservatives - Determination of the preventive action against recently hatched larvae of *Hylotrupes bajulus* (Linnaeus) - Part 1: Application by surface treatment (laboratory method)

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Wood preservatives - Determination of the preventive action
against recently hatched larvae of *Hylotrupes bajulus* (Linnaeus)
- Part 1: Application by surface treatment (laboratory method)

Produits de préservation du bois - Détermination de l'action
préventive contre les larves récemment écloses
d'*Hylotrupes bajulus* (Linnaeus) - Partie 1: Application par
traitement de surface (Méthode de laboratoire)

Holzschutzmittel - Bestimmung der vorbeugenden Wirkung
gegenüber frisch geschlüpften Larven von *Hylotrupes*
bajulus (Linnaeus) - Teil 1 : Anwendung zur
Oberflächenbehandlung (Laboratoriumsverfahren)

This European Standard was approved by CEN on 10 October 2009.

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Foreword

This document (EN 46-1:2009) 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of an identical text or by endorsement, at the latest by May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

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 EN 46-1:2005.

The standard EN 46 is composed of two parts:

- EN 46-1, *Wood preservatives — Determination of the preventive action against recently hatched larvae of *Hylotrupes bajulus* (Linnaeus) — Part 1: Application by surface treatment (laboratory method)*
- EN 46-2, *Wood preservatives — Determination of the preventive action against recently hatched larvae of *Hylotrupes bajulus* (Linnaeus) — Part 2: Ovicidal effect (laboratory method)*

EN 46 consists of two parts to enable preventive action of wood preservatives, against recently hatched larvae of *Hylotrupes bajulus*, which are intended to be applied by surface treatment; Part 1 is required to determine the larvicidal effect of preservatives and Part 2 is required to determine the ovicidal action of the preservatives after egg-laying of young females.

Significant technical differences between this document and EN 46-1:2005 are as follows:

- a) For treatment by dipping sealing of all faces except the one which is exposed to the insects added;
- b) New Annex E for extending the test duration for slow acting and deferred effect formulations added with the double number of test specimens and half number of insects;
- c) Requirements for the selection of test specimens specified with more details in 7.5;
- d) Preparation of test specimens aligned with EN 46-2 in 8.1;
- e) Annex D for treating test specimens by pipette deleted. Provisions included in 8.1.3.2.

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, 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 describes a laboratory method of testing which gives a basis for the assessment of the preventive action of a wood preservative, when applied as a surface treatment, against recently hatched larvae of *Hylotrupes bajulus*, whereas the method for determining the toxic values against *Hylotrupes bajulus* (EN 47) provides a means of checking whether a preservative prevents attack by these larvae and prevents their survival within totally impregnated wood.

This method makes it possible to determine whether recently hatched larvae are capable of boring through the treated surface of a susceptible wood species and of surviving in the untreated part of the test specimen. For this purpose, the procedure seeks to reproduce normal egg-laying conditions existing in cracks in wood, which provide the principal egg-laying sites. It takes account of the fact that, if larvae pass through the treated surface, they will then tunnel in the direction of the least protected regions of the wood.

This laboratory method provides one criterion by which the value of a preservative can be assessed. In making this assessment, the methods by which the preservative may be applied should be taken into account. This test is of particular interest when applied to test specimens which have been subjected to an ageing procedure. It is further recommended that results from this test should be supplemented by those from other appropriate tests and, above all, by 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 European Standard specifies a method for the determination of the preventive action of a wood preservative against recently hatched larvae of *Hylotrupes bajulus* (Linnaeus) when the preservative 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.

The method is applicable whether or not the test specimens have been subjected to appropriate ageing procedures.

2 Normative reference

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 73, *Wood preservatives – Accelerated ageing tests of treated wood prior to biological testing – Evaporative ageing procedure*

EN 84, *Wood preservatives – Accelerated ageing of treated wood prior to biological testing – Leaching procedure*

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 1001-2:2005, 4.71]

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

NOTE Adapted from EN 1001-2:2005, 4.83.