Wood preservatives - Determination of the protective effectiveness against Lyctus Brunneus (Stephens) - Part 1: Application by surface treatment (laboratory method)

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 20-1:2023 sisaldab Euroopa standardi EN 20-1:2023 ingliskeelset teksti.	This Estonian standard EVS-EN 20-1:2023 consists of the English text of the European standard EN 20-1:2023.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.12.2023.	Date of Availability of the European standard is 06.12.2023.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Wood preservatives - Determination of the protective effectiveness against *Lyctus brunneus* (Stephens) - Part 1: Application by surface treatment (laboratory method)

Produits de préservation du bois - Détermination de l'efficacité protectrice vis-à-vis de *Lyctus brunneus* (Stephens) - Partie 1 : Application par traitement de surface (Méthode de laboratoire)

Holzschutzmittel - Bestimmung der vorbeugenden Wirkung gegenüber *Lyctus brunneus* (Stephens) - Teil 1: Oberflächenbehandlung (Laboratoriumsverfahren)

This European Standard was approved by CEN on 6 November 2023.

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

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European foreword

This document (EN 20-1:2023) has been prepared by Technical Committee CEN/TC 38 “Durability of wood and wood-based products”, the secretariat of which is held by SIS.

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of an identical text or by endorsement, at the latest by June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 20-1:1992.

The main changes compared to the previous edition EN 20-1:1992 are listed below:

a) the source of peptone is no longer specified (5.2.6);

b) other wood species than oak may be used for the test under certain circumstances (7.1);

c) tests with solvent control may be omitted, when the solvent is water (7.5);

d) new pictures were used for Figure B.1, Figure B.2 and Figure B.3.

NOTE Test results obtained according to earlier versions of this document and when the tests had started before this version of EN 20-1 was published are considered valid.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

This Part of the EN 20 series describes a laboratory method of test which gives a basis for assessment of the protective effectiveness of a wood preservative, when applied as a surface treatment, against *Lyctus brunneus*. It allows the deternination 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 species *Lyctus brunneus* is chosen because of its particular practical relevance and because it can be used easily in laboratory tests. The method can be used with other lyctid species, but the results might not be comparable with those obtained with *Lyctus brunneus*.

The test specimens are enriched with a defined nutrient solution, before exposure to egg-laying, in order to ensure uniformity of nutrient quality of test specimens between different laboratories.

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 appropriates 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 and conditioning chambers as well as special training for personnel.

1 Scope

This part of the EN 20 series specifies a method for the determination of the protective effectiveness or the toxic values of a wood preservative against infection by *Lyctus brunneus* (Stephens) 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; or

— organic formulsation, as supplied or as prepared in the laboratory by dilution of concentrates; or

— organic water-dispersible formulations as supplied or as prepared in the laboratory by dilution of concentrates; or

— water-based preservatives, for example salts.

NOTE This method can be used in conjuction with ageing procedures, which do not remove the added nutrient.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 835, *Laboratory glassware — Graduated pipettes (ISO 835)*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

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

4 Principle

Depending on the test being carried out either:

— a set of test specimens of a susceptible wood species is impregnated with nutrient solution and then surface treated with a solution of the preservative; or

— if toxic values are to be determined, several sets of tests specimens of a susceptible wood species are impregnated with a nutrient solution and then surface treated with a series of solutions in which the concentration of preservative is ranged in a given progression.