

Wood preservatives - Determination of the protective effectiveness against *Lyctus brunneus* (Stephens) -
Part 2: Application by impregnation (Laboratory method)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 20-2:2023 sisaldab Euroopa standardi EN 20-2:2023 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.12.2023.</p> <p>Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 20-2:2023 consists of the English text of the European standard EN 20-2:2023.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 06.12.2023.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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English Version

Wood preservatives - Determination of the protective effectiveness against *Lyctus brunneus* (Stephens) - Part 2: Application by impregnation (Laboratory method)

Produits de préservation du bois - Détermination de l'efficacité protectrice vis-à-vis de *Lyctus brunneus* (Stephens) - Partie 2 : Application par traitement en profondeur (Méthode de laboratoire)

Holzschutzmittel - Bestimmung der vorbeugenden Wirkung gegenüber *Lyctus brunneus* (Stephens) - Teil 2: Anwendung durch Volltränkung (Laboratoriumsverfahren)

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Contents	Page
European foreword.....	4
Introduction	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	6
4 Principle	6
5 Test materials and apparatus.....	7
5.1 Biological material.....	7
5.2 Products and reagents.....	7
5.3 Apparatus.....	7
6 Sampling.....	8
7 Test specimens.....	8
7.1 Species of wood.....	8
7.2 Quality of wood	9
7.3 Provision of test specimens.....	9
7.4 Dimensions of test specimens	9
7.5 Number of test specimens.....	9
8 Procedure.....	9
8.1 Prior impregnation of the test specimens with a nutrient solution.....	9
8.1.1 Composition of the nutrient solution.....	9
8.1.2 Method of impregnation of nutrient solution	10
8.1.3 Drying of test specimens	10
8.2 Conditioning of specimens before end sealing.....	10
8.3 Treatment of test specimens.....	10
8.3.1 Preparation of treatment solutions.....	10
8.3.2 Impregnation.....	10
8.4 Drying and conditioning of the test specimens after treatment.....	11
8.5 Exposure of the test specimens to the insects	12
8.6 Conditions and duration of test	12
8.7 Examination of the test specimens	12
9 Validity of the test	12
10 Expression of results.....	13
10.1 Assessment of the protective effectiveness	13
10.2 Toxic values.....	13
11 Test report.....	13
Annex A (informative) Example of a test report	15
Annex B (informative) Technique for culturing <i>Lyctus brunneus</i>	17
B.1 Introduction.....	17
B.2 Diets	17
B.2.1 Wood.....	17

B.2.2	Artificial diet.....	19
B.3	Obtaining adult beetles	19
B.4	Culturing procedure	20
B.5	Identification of sex	20
B.6	Precautions against infestation by parasites	20
Annex C (informative) Principal parasites and predators of <i>Lyctus</i>		21
C.1	Mites.....	21
C.2	Insects.....	21
Bibliography		22

European foreword

This document (EN 20-2:2023) 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 20-2:1993.

The main changes compared to the previous edition EN 20-2:1993 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) test duration was aligned with EN 20-1 and extended to 20 weeks (8.6);
- e) 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 20-2 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.

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Introduction

This Part of the EN 20 series describes a laboratory method of testing which gives a basis for assessment of the protective effectiveness of a wood preservative against *Lyctus brunneus*. It allows the determination of the concentration at which the preservative completely prevents the development of infestation from egg-laying in fully impregnated wood of susceptible species.

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 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 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) in wood which has been treated previously by full impregnation.

This method is applicable to:

- water-insoluble chemicals which are being studied as active insecticides; or
- organic formulation, as supplied or as prepared in the laboratory by dilution of concentrates.

This method is applicable to water-based preservatives.

NOTE This method can be used in conjunction 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.

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