

Wood preservatives - Determination of toxic values
against Reticulitermes species (European termites)
(Laboratory method)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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EUROPEAN STANDARD

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NORME EUROPÉENNE

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Supersedes EN 117:2012

English Version

Wood preservatives - Determination of toxic values
against *Reticulitermes* species (European termites)
(Laboratory method)

Produit de préservation du bois - Détermination du
seuil d'efficacité contre les termites européens du
genre *Reticulitermes* (Méthode de laboratoire)

Holzschutzmittel - Bestimmung der Grenze der
Wirksamkeit gegenüber *Reticulitermes*-Arten
(Europäische Termiten) (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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European foreword

This document (EN 117:2023) 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of an identical text or by endorsement, at the latest by June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.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 117:2012.

The main changes compared to the previous edition EN 117:2012 are listed below:

- a) the required purity of fine white quartz sand was lowered (5.2.1.1);
- b) the values for the examination of termite attack in rating 2a) and 3a) were slightly changed to close rating gaps (8.4.2).

NOTE 1 The species name “*Reticulitermes santonensis*” is officially withdrawn and replaced by *Reticulitermes flavipes*. This document uses the preferred nomenclature.

NOTE 2 Test results obtained according to earlier versions of this document and when the tests had started before this version of EN 117 was published are considered as 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 document describes a laboratory method of testing which gives a basis for assessment of the effectiveness of a wood preservative against the *Reticulitermes* species of subterranean termites. It allows the determination of the concentration at which the product completely prevents attack by these insects of impregnated wood of a susceptible species.

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 can be applied should be taken into account. It is further recommended that results from this 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 (see also Annex C for environmental, health and safety precautions).

1 Scope

This document specifies a method for the determination of the toxic values of a wood preservative against the *Reticulitermes* species of European termites.

NOTE 1 The method can be applied not only to different species of *Reticulitermes*, but also to other species of the family of the Rhinotermitidae, adapting the conditions of temperature and humidity where necessary to the specific requirements of the species concerned.

This method is applicable to:

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

NOTE 2 This method can be used in conjunction with an ageing procedure, for example EN 73 or EN 84.

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

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

Impregnation of several sets of test specimens of susceptible wood with a series of solutions in which the concentration of preservative is ranged in a given progression.

Exposure of these test specimens to specified colonies of *Reticulitermes* and assessment of the attack suffered after exposure under fixed conditions and over a fixed period. In providing biological validation of individual species, it is essential that the locality of origin of each test termite species is given. The description of the locality should at least include the district name.