

Wood preservatives - Field test method for
determining the relative protective effectiveness of a
wood preservative exposed out of ground contact -
Horizontal lap-joint method

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12037:2022 sisaldab Euroopa standardi EN 12037:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 12037:2022 consists of the English text of the European standard EN 12037:2022.
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 30.11.2022.	Date of Availability of the European standard is 30.11.2022.
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.

ICS 71.100.50

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis-ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis-ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation and Accreditation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Wood preservatives - Field test method for determining
the relative protective effectiveness of a wood
preservative exposed out of ground contact - Horizontal
lap-joint method

Produits de préservation du bois - Méthode d'essai sur
le terrain pour déterminer l'efficacité protectrice
relative d'un produit de préservation du bois sans
contact avec le sol - Méthode avec un assemblage à
joint superposé

Holzschutzmittel - Freilandprüfung zur Bestimmung
der relativen Wirksamkeit eines Holzschutzmittels
ohne Erdkontakt - Verfahren mit horizontaler
Überblattung (Lap-Joint)

This European Standard was approved by CEN on 30 October 2022.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms, definitions and symbols	6
3.1 Terms and definitions	6
3.2 Symbols.....	7
4 Principle	8
5 Materials	8
5.1 Test specimens.....	8
5.2 End-seal compounds.....	10
6 Apparatus and equipment	10
7 Sample of wood preservative	12
8 Test lap-joints	12
8.1 Initial end sealing.....	12
8.2 Treating process.....	12
8.3 Retention of preservative	12
8.4 Post-treatment handling of the test lap-joints	13
8.4.1 Conditioning.....	13
8.4.2 Final end sealing (prior to exposure)	13
8.4.3 Labelling.....	13
8.4.4 Assembling lap-joints	13
9 Untreated control lap-joints	13
10 Exposure test site	13
10.1 Selection of test site.....	13
10.2 Installation of the lap-joints at the test site.....	13
11 Inspection	14
12 Assessment	14
13 Duration of the test	15
14 Validity of test	15
15 Test report	15
Annex A (informative) Information on an additional test with a reference preservative and on treatment processes	17
A.1 Additional test with a reference preservative	17
A.1.1 General.....	17
A.1.2 Reference preservative.....	17
A.1.3 Additional reference preservative 1.....	17
A.1.4 Additional reference preservative 2	17
A.1.5 Tolerances of variation	18

A.1.6	Reference lap-joint.....	18
A.2	Model treatments methods.....	19
A.2.1	General	19
A.2.2	Brushing.....	19
A.2.3	Spraying in a spray tunnel.....	19
A.2.4	Dip process.....	19
A.2.5	Steeping.....	19
A.2.6	Double vacuum process	20
A.2.7	Full-cell process	20
Annex B (informative)	Example of a test report.....	21
Annex C (informative)	Determination of the preventive efficacy of a test preservative or components of a test preservative against staining fungi using horizontal lap-joint method.....	27
C.1	General	27
C.2	Assessment	27
Annex D (informative)	Test field site	28
Bibliography	29

European foreword

This document (EN 12037:2022) 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 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

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 CEN/TS 12037:2003.

Test results obtained with earlier versions of CEN/TS 12037 are still valid.

In relation to CEN/TS 12037:2003, the following main modifications have been made:

- change of variation in density of test specimens;
- change of grading system for evaluation.

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

The main objective of the method is to evaluate the relative effectiveness of the preservative, applied to jointed specimens of Scots pine sapwood by a treatment method relevant to its intended practical use and as such does not necessarily accelerate decay but reflects probable performance in service.

The method is concerned with the protection against decay after exposure to a wide range of microorganisms occurring out of ground contact under natural conditions. It takes into account also physico-chemical effects of weathering on the performance of the preservative treated wood.

Since the lap-joints are exposed to natural outdoor conditions during the test period, variations in test conditions from one exposure site to another should be expected. Differences in climate, especially rainfall, will inevitably influence the general rate of development of decay fungi. However, by comparing the results obtained for the test preservative with those obtained for untreated control lap-joints, the relative protective effectiveness of the preservative under test can be evaluated.

The procedures described in this document are intended to be carried out by suitably trained and/or supervised specialists. Appropriate safety precautions should be observed throughout the use of the document.

1 Scope

This document specifies a test method for wood preservatives that are intended for use in wood to be exposed to the weather out of contact with the ground without the additional protection of a surface coating.

The method is applicable to the testing of commercial or experimental preservatives applied by techniques appropriate to commercial practice. The method is applicable to chemical products used individually or in combination to prevent the development of decay and/or – optional – the development of disfiguring organisms in wood and, where suitable, in wood-based materials.

NOTE 1 The method can also be used to test other treated wood species and naturally durable timbers. It can be adapted for testing the field performance of other wood-based systems and treatments designed to enhance durability, for example treated or untreated wood based composites, timber treated with non-biocidal systems, chemically modified or heat treated timber. Guidance on samples and sampling of naturally durable wood and modified wood is found in EN 350.

NOTE 2 Although the test is used to assess decay, it is possible to use the method to additionally assess stain or each separately when relevant.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and symbols

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

ISO and IEC maintain terminological 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 Terms and definitions

3.1.1

active ingredient

chemical compound or compounds included in a wood preservative to give it specific activity against the biological agents of deterioration

3.1.2

penetrating treatment process

process which includes features or procedures intended to overcome the natural resistance of wood to penetration by a wood preservative in its ready for use form

Note 1 to entry: Such processes include for example currently practised technologies of diffusion treatments, double-vacuum and vacuum-pressure methods.

3.1.3

superficial application process

process which does not include particular features or procedures intended to overcome the natural resistance of wood to penetration by a wood preservative in its ready for use form

Note 1 to entry: Such processes include for example brush and spray techniques and short-term immersion (dipping) processes in which wood normally has only a few minutes contact time with the preservative.