

**Field test method for determining the relative protective effectiveness of a wood preservative in ground contact**

This document is a preview generated by EVS

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 252:2014 sisaldab Euroopa standardi EN 252:2014 inglisekeelset teksti.	This Estonian standard EVS-EN 252:2014 consists of the English text of the European standard EN 252:2014.
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.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 05.11.2014.	Date of Availability of the European standard is 05.11.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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

ICS 71.100.50

### Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

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

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:  
Aru 10, 10317 Tallinn, Eesti; [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

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

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.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:  
Aru 10, 10317 Tallinn, Estonia; [www.evs.ee](http://www.evs.ee); phone 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

English Version

## Field test method for determining the relative protective effectiveness of a wood preservative in ground contact

Essai de champ pour déterminer l'efficacité protectrice relative d'un produit de préservation du bois en contact avec le sol

Freiland-Prüfverfahren zur Bestimmung der relativen Schutzwirkung eines Holzschutzmittels im Erdkontakt

This European Standard was approved by CEN on 30 August 2014.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Contents

Page

Foreword.....	4
Introduction .....	5
1 Scope .....	6
2 Principle.....	6
3 Wood specimens .....	6
3.1 Wood species.....	6
3.2 Wood quality .....	6
3.3 Characteristics and dimension of stakes.....	6
3.4 Number of Stakes .....	7
3.5 Labelling of stakes.....	7
4 Sample of wood preservative.....	7
5 Conditioning and treatment of the stakes.....	7
5.1 Conditioning.....	7
5.2 Treating process.....	7
5.3 Determination of retention of wood preservative product .....	8
5.4 Range of preservative retention.....	8
5.5 Post treatment conditioning of stakes .....	8
6 Reference stakes .....	8
6.1 Reference preservative .....	8
6.2 Alternative reference preservative.....	9
7 Untreated control stakes.....	9
8 Condition of the test field .....	9
9 Installation of the stakes in the test field .....	10
10 Inspections .....	10
11 Evaluation.....	11
11.1 General.....	11
11.2 Attack by microorganisms.....	11
11.3 Attack by termites.....	11
11.4 Simultaneous attack by microorganisms and termites .....	12
12 Duration of the test.....	12
13 Conditions for the validity of the test .....	12
14 Test report .....	12
<b>Annex A (informative) Guidance for the testing of wood or wood based products that have not been treated with a wood preservative .....</b>	<b>15</b>
<b>Annex B (informative) Characterization of the field test site.....</b>	<b>17</b>
<b>Annex C (informative) Example of pattern for setting up field stakes into the ground .....</b>	<b>18</b>

**Annex D (informative) Determination of strength characteristics in wood stakes through measuring Modulus of Elasticity ..... 19**

**Annex E (informative) Example of a test report ..... 21**

**Bibliography ..... 24**

This document is a preview generated by EVS

## Foreword

This document (EN 252:2014) 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 2015 and conflicting national standards shall be withdrawn at the latest by May 2015.

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 252:1989.

In relation to the previous version of the standard, the following main modifications have been made:

- change in the assessment criteria for fungal decay;
- minor changes in the description of termite attack;
- the addition of informative annexes concerning the determination of strength characteristics in wood stakes by measuring the modulus of elasticity; the characterization of field test sites and the setting-out of the test stakes in the field test sites.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

The method is primarily concerned with protection against microbial attack. However, it is also capable of being used in areas where a termite hazard exists. It should also be noted that microbial decay may alter the resistance of a stake to termite attack and that termite attack may obliterate evidence of microbial decay.

This field method provides one criterion by which the effectiveness of a wood preservative product can be assessed in a ground contact situation (Use Class 4 according to EN 335).

The main objective of the method described is to evaluate the effectiveness of a preservative relative to a reference material.

For this reason permeable timbers are used throughout so that the protective efficacy of various retentions of wood preservative can be determined.

NOTE Informative Annex A gives guidance for testing wood or wood based products in ground contact that have or have not been treated with a wood preservative.

## 1 Scope

This European Standard specifies a field test method for evaluating the effectiveness of wood preservatives in a ground contact situation. Wood treated with a reference preservative is included for comparison.

The protective effect of the test preservative is assessed in relation to the effect of a reference wood preservative applied by a specified treatment.

## 2 Principle

Wooden stakes are treated with preservative solutions to give a range of preservative retentions. After drying and, if necessary, an appropriate fixation period, the stakes are partially buried in soil in selected test fields in the open.

The stakes are regularly inspected and their condition compared with that of untreated controls and that of a group of stakes treated with a reference preservative both of which indicate the aggressiveness of the individual field.

The different agents of attack and their respective intensities are recorded.

## 3 Wood specimens

### 3.1 Wood species

Susceptible wood species that can be completely penetrated with preservative shall be chosen as follows:

- for every test the sapwood of Scots Pine (*Pinus sylvestris* (L)), shall be used;
- it is recommended that a hardwood species of local importance is included if the preservative is expected to be used in this type of wood;
- if desired other wood species may be incorporated in the test.

### 3.2 Wood quality

The wood shall be straight-grained and free from knots, cracks, stain, decay, insect holes, reaction wood or other defects. Test stakes with a resinous appearance shall be avoided. The wood shall not have been water-stored, floated, chemically treated or steamed or dried at a temperature above 60 °C.

The Scots Pine sapwood shall show an average rate of growth of 2,5 to 10 annual rings per 10 mm.

If additional wood species are to be used the range in the number of annual rings per 10 mm for each species shall be mentioned in the report.

The test report shall also include the mean density and moisture content for the wood used in the preparation of the stakes.

### 3.3 Characteristics and dimension of stakes

The boards shall be conditioned at  $(20 \pm 2)$  °C,  $(65 \pm 5)$  % relative humidity.

Stakes for test shall be cut from the test wood(s) as follows: