Durability of wood and wood-based products - Efficacy criteria for curative wood preservatives as determined by biological tests



#### EESTI STANDARDI EESSÕNA

#### NATIONAL FOREWORD

			This Estonian standard EVS-EN 14128:2020 consists of the English text of the European standard EN 14128:2020.
Standard on jõustu avaldamisega EVS Teata		teate	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimiso Euroopa standardi kättesaadavaks 25.03.2	rahvuslikele liik		Date of Availability of the European standard is 25.03.2020.
Standard on Standardikeskusest.	kättesaadav	Eesti	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.

#### 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: Koduleht <u>www.evs.ee</u>; telefon 605 5050; e-post <u>info@evs.ee</u>

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:

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

## EUROPEAN STANDARD

## NORME EUROPÉENNE

### **EUROPÄISCHE NORM**

March 2020

EN 14128

ICS 71.100.50

Supersedes EN 14128:2003

#### **English Version**

# Durability of wood and wood-based products - Efficacy criteria for curative wood preservatives as determined by biological tests

Durabilité du bois et des matériaux dérivés du bois -Efficacité des produits curatifs de préservation du bois établis par des essais biologiques Dauerhaftigkeit von Holz und Holzprodukten -Anforderungen an bekämpfend wirkende Holzschutzmittel, wie sie durch biologische Prüfungen ermittelt werden

This European Standard was approved by CEN on 13 January 2020.

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, Turkey 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

Cont	tents	Page
Euron	ean foreword	3
-	luction	
1	Scope	
2	Normative references	
<del>-</del> }	Terms and definitions	
1.	Wood destroying organisms	
r 1.1	Insects	
1.2	Dry rot fungus	8
5	Efficacy requirements for products against wood boring beetles	8
5.1	Minimum requirements for curative efficacy	
5.2	Requirements for preventive efficacy	
5	Efficacy requirements for barrier treatments against dry rot fungus	
7 7.1	Derivation of effective values  Effective value against beetles	
7.1 7.2	Effective value against dry rot fungus	
3	Product identification and labelling	
3.1	Product identification	
3.1.1	Type testing	
3.1.2	Identity of the preservative product	
3.2 3.2.1	Product labellingGeneral	
3.2.1 3.2.2	Product labelling for products against beetles	
3.2.3	Product labelling for barrier treatments against the dry rot fungus	
Annex	A (informative) Guidance on re-testing after making variations in product	
	formulation	
<b>4.1</b>	Introduction	12
<b>A.2</b>	Guidance on re-testing after making variations to curative wood preservatives for	
	the control of wood boring insects	
<b>A.2.1</b>	General	
<b>A.2.2</b>	No requirements for new biological testing	12
<b>A.2.3</b>	Requirements for minimum new biological testing	
<b>4.2.4</b>	Requirement for full new biological testing	15
<b>A</b> .3	Guidance on re-testing after making variations to barrier treatments that are applied to masonry to prevent the growth of dry rot	15
<b>A.3.1</b>	No requirements for new biological testing	15
<b>A.3.2</b>	Requirements for full new biological testing	
	B (informative) Test recommendations for specific curative products against other	J"
	insect species than Hylotrupes bajulus and Anobium punctatum	17
Rihlin	granhy	18

#### **European foreword**

This document (EN 14128:2020) 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 September 2020, and conflicting national standards shall be withdrawn at the latest by September 2020.

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 14128:2003.

This document gives the performance criteria for curative wood preservatives as determined by biological tests. A European Technical Report (CEN/TR 15003) is concerned with criteria for hot air processes for curative uses against wood destroying organisms.

This document is valid for products to eradicate wood boring beetles in infested wood and for products to be used in the course of curative actions against the dry rot fungus to prevent its growth through masonry and beyond.

Compared to EN 14128:2003, the following modifications have been made:

- a) Clause 6: the limits of the application rates of the fungicide solution have been removed;
- b) Table 1: criterion for effective value has been changed to criterion for brv. Table re-organized;
- c) clauses and subclauses contained in 8.2 Product classification; 8.3 and 8.4 Product description; 8.5 and 8.6 Product labelling, have been merged in 8.2 Product labelling;
- d) Annex B and C have been merged and changed from normative to informative;
- e) Annexes C, D, E and F have been deleted.

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, Turkey and the United Kingdom.

5 T.

#### Introduction

This document should be used in conjunction with EN 599-1, which describes the performance requirements for preventive wood preservatives as determined by biological tests.

The need to use curative products against wood destroying organisms depends upon a careful diagnosis by expert, qualified specialists to determine the precise causes of the damage to be rectified. This should include the type of wood attacking organisms involved and whether they are active, the environmental circumstances, especially the source and nature of any wetting, the type of wood involved, the nature of the building or construction, and the structural and physical significance of the timber which is damaged or at risk of being damaged.

NOTE Curative treatment can be achieved either by chemical wood preservatives as specified in this document or by specific curative processes without using chemicals, like hot air processes, as given in CEN/TR 15003.

Curative wood preservative products should be used in an integrated way as part of a carefully prescribed strategy involving a series of actions appropriate to the particular circumstances of each case. Associated physical measures involving appropriate building works to remedy ingress of moisture and to dry out any dampness can be an essential prerequisite for the use of any curative products. Expert diagnosis should take into account all regional, practical, environmental, economical, safety and any other factors which can be relevant to the prescriptive decisions to be taken.

It is not the purpose of this document to provide a specification, or even guidance in developing specifications for remedial work to eradicate wood destroying organisms. This document also does not give guidance on the methods of application or the precise amounts of products that might be appropriate Logueness as to apply in specific practical circumstances. It is intended to guide specifiers, users and others in selecting and specifying products on the basis of their effectiveness as demonstrated in accordance with the criteria given.

#### 1 Scope

This document specifies the minimum performance requirements in biological tests for products for curative uses against specific wood destroying organisms. It specifies the biological tests required together with the efficacy criteria to be achieved in each test.

Chemicals against insects can act according to their specific properties within a short time (fast acting) or only after a long period (slow acting or with a deferred effect). Different tests and efficacy requirements are needed for these various types of curative wood preservatives.

This document is applicable to all wood preservative products supplied for application in liquid form for curative uses against attack by wood boring beetles. This document is also applicable for products applied to prevent the growth of the dry rot fungus through masonry.

This document is also applicable to products for curative uses supplied for application as pastes, solids or in capsule form but only where appropriate biological methods of test exist as published European Standards.

NOTE This standard is used as a reference document for the evaluation of efficacy of biocidal products PT8 (wood preservatives) in the framework of the European Regulation on Biocidal Products (EU) No 528/2012 (BPR).

This document is not applicable to products used as fumigants.

This document is also not applicable for determining whether specific curative products, used alone or in combination, are effective in conferring long-term protection against attack by wood destroying organisms. Preventive effectiveness can be determined using EN 599-1 but only for products that can be tested using the methods and interpretative procedures defined in EN 599-1.

Annex A (informative) contains a guidance on re-testing after making variations in product formulation.

Annex B (informative) contains some test recommendations for specific curative products against other insect species than *Hylotrupes bajulus* and *Anobium punctatum*.

#### 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 48, Wood preservatives - Determination of eradicant action against larvae of Anobium punctatum (De Geer) (laboratory method)

EN 370, Wood preservatives - Determination of eradicant efficacy in preventing emergence of Anobium punctatum (De Geer)

EN 599-1:2009+A1:2013, Durability of wood and wood-based products - Efficacy of preventive wood preservatives as determined by biological tests - Part 1: Specification according to use class

EN 1390, Wood preservatives - Determination of the eradicant action against Hylotrupes bajulus (Linnaeus) larvae - Laboratory method

CEN/TS 12404, Durability of wood and wood-based products - Assessment of the effectiveness of a masonry fungicide to prevent growth into wood of Dry Rot Serpula lacrymans (Schumacher ex Fries) S.F. Gray - Laboratory method