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LIIGITUS

Durability of wood and wood-based products -
Preservative-treated solid wood - Part 1: Classification
of preservative penetration and retention

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 351-1:2023 sisaldab Euroopa standardi EN 351-1:2023 ingliskeelset teksti.	This Estonian standard EVS-EN 351-1:2023 consists of the English text of the European standard EN 351-1:2023.
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EUROPEAN STANDARD

EN 351-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

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ICS 71.100.50; 79.040

Supersedes EN 351-1:2007

English Version

Durability of wood and wood-based products - Preservative-treated solid wood - Part 1: Classification of preservative penetration and retention

Durabilité du bois et des matériaux dérivés du bois -
Bois massif traité avec produit de préservation - Partie
1 : Classification des pénétrations et rétentions des
produits de préservation

Dauerhaftigkeit von Holz und Holzprodukten - Mit
Holzschutzmitteln behandeltes Vollholz - Teil 1:
Klassifizierung der Schutzmitteleindringung und -
aufnahme

This European Standard was approved by CEN on 17 July 2022.

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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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 351-1:2023) 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of an identical text or by endorsement, at the latest by October 2023, and conflicting national standards shall be withdrawn at the latest by October 2023.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 EN 351-1:2007.

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

- a new penetration class has been introduced;
- optional requirement on longitudinal penetration has been deleted;
- compliance with penetration and retention requirements have been further elaborated;
- clause on marking has been updated;
- Figure A.1 has been updated;
- Annex C, showing penetration classes according to EN 351-1:1995, has been deleted.

The EN 351 series consists of two parts. Part 1 gives guidance on the specification of penetration and retention requirements for preservatives in preservative-treated solid wood. Part 2 gives guidance on the general procedures to be followed in the sampling for analysis of preservative-treated solid wood.

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, Turkey and the United Kingdom.

Introduction

This part of the EN 351 series allows a specifier or user to choose a preservative treatment for a solid wood product taking into account its intended service or the needs of different regional or traditional practices throughout Europe and the use class conditions to which the solid wood products will be exposed (see EN 335). In addition, it provides the basis on which treatments for timber in European product standards are to be specified. No attempt has been made to quantify the working life that could be expected from a particular preservative treatment as this will also depend on the geographical location and the associated climate of the service environment. The performance of treated wood cannot be assessed directly, for example by field tests or bioassay, as no agreed documents exist specifically for this purpose. As a consequence, the quality of treatment is specified using the penetration and retention of a preservative in treated wood. The penetration and retention values are measured by analysis of the active ingredient(s) in the treated wood.

Preservative treatment for certain wood species used in the different use classes might be unnecessary owing to their natural durability (see EN 350 and EN 460). If preservative treatment is necessary, preservatives with appropriate efficacy against wood destroying organisms as specified in EN 599-1 need to be chosen.

1 Scope

This part of the EN 351 series establishes a classification of preservative-treated wood in terms of preservative penetration and gives guidance on a classification of retention. These can be used as a basis for specifying preservative treatments for particular products.

This part of the EN 351 series defines terminology to be used by the specifier when preparing a preservative treatment specification or product standard. It is not a treatment specification in itself.

This part of the EN 351 series is applicable to the production of preservative-treated solid wood, including glued laminated timber, suitable for use in those service conditions defined within the use classes in EN 335. It does not apply to any subsequent examination of treated wood in service.

NOTE 1 Glued laminated timber is not suitable for use in fresh or sea water.

This part of the EN 351 series is applicable to the protection of wood against attack by wood-destroying and wood-disfiguring fungi, insects and marine organisms.

NOTE 2 Protection against wood-disfiguring fungi is an optional property verified by testing in accordance with EN 599-1.

This part of the EN 351 series does not consider other properties of treated wood, for example odour, compatibility with other materials, such as corrosivity of fasteners. Nor does it consider any properties from the health, safety and environmental point of view.

This part of the EN 351 series does not apply to wood to be treated with formulations which are applied to timber in service to eliminate or control an existing fungal or insect infestation, or the prevention of attack by sapstain fungi, or insects in green timber.

Annex A (informative) provides a decision process for specifying preservative treatment requirements.

Annex B (informative) gives an example of the marking system.

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 599-1, *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 1001-2, *Durability of wood and wood based products - Terminology - Part 2: Vocabulary*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1001-2 and the following 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>