SLOVENSKI STANDARD
SIST EN 351-2:2004

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Trajnost lesa in lesnih proizvodov ï Zaġļ iten masivni les ï 2. del: Navodila za vzorļ enje zaġļ itenega lesa za analizo

Durability of wood and wood-based products - Preservative-treated solid wood - Part 2: Guidance on sampling for the analysis of preservative-treated wood

Dauerhaftigkeit von Holz und Holzprodukten - Mit Holzschutzmitteln behandeltes Vollholz - Teil 2: Leitfaden zur Probenentnahme für die Untersuchung des mit Holzschutzmitteln behandelten Holzes

Durabilité du bois et des matériaux dérivés du bois - Bois massif traité avec produit de préservation - Partie 2: Guide d'échantillonnage pour l'analyse du bois traité avec un produit de préservation

Ta slovenski standard je istoveten z: **EN 351-2:1995**

ICS:

71.100.50	Kemikalije za zaġļ ito lesa	Wood-protecting chemicals
79.040	Les, hlodovina in žagan les	Wood, sawlogs and sawn timber

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Descriptors: Wood, sawn timber, durability, wood preservatives, sampling, impregnating, chemical analysis

English version

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 38 "Durability of wood and wood-based products" of which the secretariat 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of an identical text or by endorsement, at the latest by November 1995, and conflicting national standards shall be withdrawn at the latest by November 1995.

This European Standard consists of two parts, Part 1 is concerned with defining the penetration requirements and gives guidance on the retention requirements for preservatives in preservative-treated solid wood and Part 2 gives guidance on the general procedures to be followed in the sampling for analysis of preservative-treated solid wood.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This part of EN 351 gives guidance on the general procedures to be used in the preparation of samples of preservative-treated wood for the determination of penetration and retention of wood preservative.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this part of EN 351, only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

pr EN 351-1		Durability of wood and wood-based products - Preservative-treated solid wood - Part 1 : Classification of preservative penetration and retention
ISO 2859-1	1989	Sampling procedures for inspection by attributes - Part 1 : Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection

3 Definitions

For the purposes of this Standard, the definitions given in pr EN 351-1 apply.

4 Sampling of preservative-treated solid wood for determination of penetration and retention

4.1 General sampling requirements

General recommendations for sampling are given in 4.1.1 and 4.1.2. However, individual techniques for the determination of penetration and retention could impose special requirements for sampling and subsequent handling.

4.1.1 Selection of sampling units from a batch

The number of sampling units should be determined according to ISO 2859-1 taking account of the penetration tolerances selected.

NOTE : Annex A provides additional information on the number of sampling units to be taken.

Sampling units should be selected at random from a batch of preservative-treated wood soon after appropriate post-treatment conditioning. However, if sapwood penetration is to be determined, units consisting entirely of heartwood should be avoided.

4.1.2 Selection of test samples from sampling unit

Test samples should be selected from the sampling units according to the following principles :

- if penetration and retention can be determined from a single test sample, only one test sample per sampling unit is necessary. Otherwise two test samples should be taken per sampling unit for the separate determination of penetration and retention ;

- test samples should be taken from clear, straight-grained wood, away from splits, checks or other defects and at least 100 mm away from knots in a longitudinal direction. For assessment of retention and lateral penetration, test samples should be taken midway between ends or at least 300 mm from the end ;

- test samples should be taken as borings, cross-sections, longitudinal sections, or thin sections (see 4.2 and 4.3) as appropriate.

4.2 Test samples for determination of penetration

4.2.1 Borings

4.2.1.1 General

Borings should not be used to determine axial penetration.

Borings should be taken with a sharp increment borer which extracts a core of minimum diameter 5 mm.

If material is incised, borings should be taken at a point midway between adjacent incisions.

NOTE : All borer holes should be promptly plugged with tight fitting wooden pretreated with an appropriate preservative.

4.2.1.2 Round and part-round wood

For round wood the borer should be directed towards the pith from any point on the surface.

For part-round wood the borer should be directed towards the pith (or the point where the pith would have been in the original log) from a point on the curved surface which is furthest away from the cut surface(s).

If a defined penetration depth, less than complete penetration, is required, the borer should penetrate to a depth greater than the penetration being measured (see figure 1).

If the requirement is for complete penetration, it is necessary for the borer to penetrate to the geometrical centre of the cross-section (see figure 2).

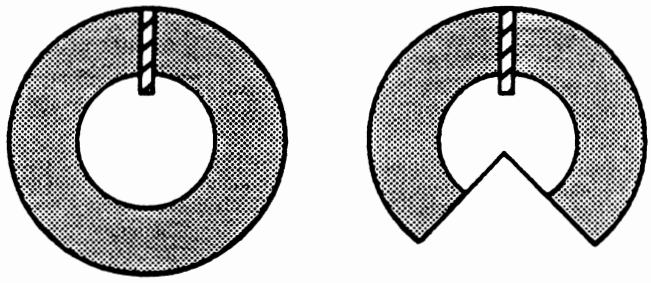


Figure 1 : Sampling location in round and part-round wood if a defined penetration depth is required

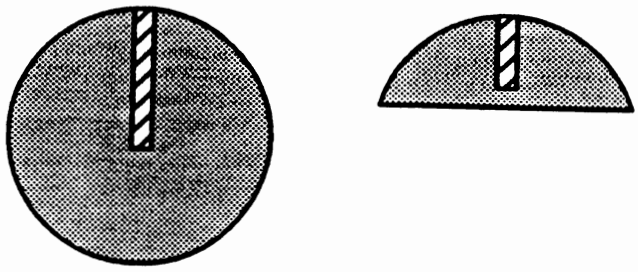
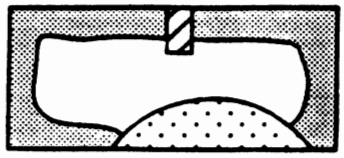


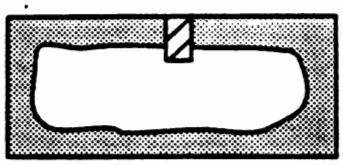
Figure 2 : Sampling location in round and part-round wood if complete penetration is required

4.2.1.3 Sawn and profiled wood

If a defined penetration depth, less than full sapwood penetration, is required, borings should be taken, as far as possible, equidistant from the sides and perpendicular to the face being sampled to a depth greater than the penetration being measured (see figure 3).

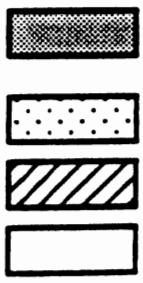


a) Sampling location in samples containing both sapwood and heartwood



b) sampling location in samples consisting entirely of sapwood or if it is impossible to identify any heartwood before sampling

Legend to figures :



required penetration of preservative

heartwood

wood taken as sample

no treatment requirement

Figure 3 : Sampling location in sawn and profiled wood if a defined penetration depth is required

If full sapwood penetration is required, borings should be taken, as far as possible, in the radial direction and where the depth of sapwood is greatest. From sampling units consisting entirely of sapwood or if it is impossible to identify any heartwood before sampling, the boring should be taken equidistant from the sides and perpendicular to the face being sampled to a depth of half the thickness of the sampling unit (see figure 4).