Puidu ja puittoodete vastupidavus.
Täispuidu loomulik vastupidavus. Osa
2: Euroopas oluliste valitud puiduliikide
loomuliku vastupidavuse ja
töödeldavuse määramise juhised

Durability of wood and wood-based products -Natural durability of solid wood - Part 2: Guide to natural durability and treatability of selected wood species of importance in Europe



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 350-
2:1999 sisaldab Euroopa standardi EN
350-2:1994 ingliskeelset teksti.

Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 350-2:1999 consists of the English text of the European standard EN 350-2:1994.

This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

Käsitlusala:

See standardi EN 350 osa loetleb valitud puiduliikide täispuidu loomulikku vastupidavust, lähtudes liikide tähtsusest ehituslikul kasutamisel Euroopa maades. Standard loetleb nende suhtelist vastupidavust puitu lagundavatele seentele, kuiva puitu hävitavatele mardikatele ja termiitidele ning mereorganismidele.

Scope:

ICS 79.040

Võtmesõnad: kahjurikindlus, katsed, liigitus, loetelud, puit, puittoidulised loomad (ksülofaagid), seened, termiidid, tähistus, vastupidavus

May 1994

UDC 674.03(04):620.193.91:674.048

Descriptors: Durability, wood, solid wood, wood-destroying organisms, treatability.

English version

Durability of wood and wood-based products

Natural durability of solid wood

Part 2: Guide to natural durability and treatability of selected wood species of importance in Europe

Durabilité du bois et des matériaux dérivés du bois; durabilité naturelle du bois massif. Partie 2: Guide de durabilité naturelle du bois et de l'imprégnabilité d'essences de bois choisies pour leur importance en Europe

Dauerhaftigkeit von Holz und Holzprodukten; natürliche Dauerhaftigkeit von Vollholz. Teil 2: Leitfaden für die natürliche Dauerhaftigkeit und Tränkbarkeit von ausgewählten Holzarten von besonderer Bedeutung in Europa

This European Standard was approved by CEN on 1994-05-18.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

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

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

Contents

		F	Page
Foreword .			. 2
1 Scope .			. 3
2 Normativ	ve referenc	es	. 4
3 Definitio	ns		. 4
4 Backgro	und inform	ation	. 5
Table 1: Cla	assification	of the treatability of wood	. 9
Table 2: Na	tural durab	ility and treatability of softwood species	11
Table 3: Na	tural durab	ility and treatability of hardwood species	15
Table 4: Cla	assification	of commercial groupings	29
Table 5: Wo	od species	s listed in this standard which are classed as durable (D) and	
mo	derately du	urable (M) against marine organisms	31
Annex A (in	formative)	Alphabetical list of common names	32
Annex B (in	formative)	Scheme for assigning the durability rating for the various	
		organisms	36
Annex C (in	formative)	Explanation of symbols in tables 2 and 3	38
Annex D (in	formative)	Bibliography	38

Foreword

This Part of EN 350 has been drawn up by WG 2 'Natural durability' of CEN/TC 38 'Durability of wood and wood-based products', the Secretariat of which is held by AFNOR.

This European Standard is divided in two Parts, Part 1 giving guidance on the procedure of determining and classifying the comparative natural durability of an individual wood species, and Part 2 dealing with the natural durability and treatability of selected wood species of importance in Europe.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, by November 1994 at the latest, and conflicting national standards withdrawn by December 1996 at the latest. In accordance with 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 United Kingdom.

Introduction

Wood is a variable material. Its natural durability to various forms of biological attack is affected by many factors. Consequently, definitive statements about natural durability cannot be made without having accurate and comprehensive test data. However, based on the information currently available, this part of EN 350 gives guidance on the durability of heartwood and sapwood of selected wood species to degradation by a range of organisms. Separate guidance is given for each organism. For fungi a single durability classification is listed, usually derived from the performance of heartwood stakes exposed half buried out of doors in soil. Detailed guidance concerning the performance of wood species in relation to fungal degradation in other than ground contact situations is not given as this is a product of a complex interaction of factors which is not fully understood.

Information on other selected characteristics of each wood species is given for the guidance of users.

EN 460 gives guidance on the durability classification appropriate for a particular hazard class.

The performance of a component in service will, in many cases, require consideration of the proportion of sapwood which may be present as sapwood and heartwood generally have different durabilities.

It should be emphasized that the durability rating of wood species given in this Part of EN 350 cannot be regarded as any guarantee of performance in service.

1 Scope

This part of EN 350 lists the natural durability of solid wood for selected wood species, considered of importance to the countries within Europe for constructional purposes. It lists their relative durability to

- wood-destroying fungi
- dry wood-destroying beetles
- termites
- marine organisms

It also gives information relating to their treatability, origin, density, and sapwood width.

NOTE: the omission of a species does not imply that it is unsuitable for use. A species may have been omitted because it was not considered of sufficient importance to be included, or because no or insufficient data were available to classify it.

This part of EN 350 does not give service lives for components but gives a ranking of various wood species in order to allow comparison of unknown species with well known ones.

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 European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 335-1: 1992 Durability of wood and wood-based products - Definition of hazard

classes of biological attack - Part 1 : General.

EN 350-1: 1994 Durability of wood and wood-based products - Natural durability of

solid wood - Part 1: Guide to the principles of testing and

classification of the natural durability of wood.

EN 460: 1994 Durability of wood and wood-based products - Natural durability of

solid wood - Guide to the durability requirements for wood to be used

in hazard classes.

CITES Convention on International Trade in Endangered Species of wild

Fauna and Flora" signed at Washington DC on 3 March 1973 and published as a special supplement to IUCN Bulletin 4 (3) March 1973.

3 Definitions

For the purposes of this part of EN 350, the following definitions apply:

- 3.1 natural durability: The inherent resistance of wood to attack by wood destroying organisms (see EN 350-1).
- **3.2 sapwood**: Outer zone of wood that, in the growing tree, contains living cells and conducts sap. (see EN 350-1).

NOTE: often distinguishable from heartwood by a lighter colour.

3.3 heartwood: Inner zone of wood that, in the growing tree, has ceased to contain living cells or to conduct sap. (see EN 350-1).

NOTE: often distinguishable from sapwood by a darker colour. Not every wood species contains heartwood.

3.4 treatability: The ease with which a wood can be penetrated by a liquid (for example a wood preservative).