

English version

Wood preservatives - Determination of the effectiveness against soft rotting micro-fungi and other soil inhabiting micro-organisms

Produits de préservation du bois - Détermination de l'efficacité vis-à-vis des micro-organismes de pourriture molle et d'autres micro-organismes du sol

Holzschutzmittel - Prüfverfahren für die Bestimmung der Grenze der Wirksamkeit gegen Moderfäule und andere erdbewohnende Mikroorganismen

This European Prestandard (ENV) was approved by CEN on 1 March 2001 as a prospective standard for provisional application.

The period of validity of this ENV is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the ENV can be converted into a European Standard.

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Foreword

This European Prestandard has been prepared by Technical Committee CEN/TC 38, "Durability of wood and derived materials", the secretariat of which is held by AFNOR.

This European Prestandard supersedes ENV 807:1993.

The annexes A, B, C, D, E and F are informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this European Prestandard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This European Prestandard specifies a laboratory method of test which gives a basis for assessing the effectiveness of a wood preservative against micro-fungi (ascomycetes and fungi imperfecti) which cause soft rot of wood in service. The infection source is the natural micro-flora of the soil which may also contain other micro-organisms, such as bacteria and other fungi, such as moulds and basidiomycetes. This laboratory method provides one criterion by which the value of a wood preservative product can be assessed. This information has to be supplemented by data from other relevant tests and from practical experience.

1 Scope

This European Prestandard specifies a method of test for determining the toxic effectiveness of a wood preservative, applied to wood by full impregnation, against the micro-fungi which cause soft rot of wood.

The method is applicable to testing of formulated products or of their active ingredients.

NOTE A method suitable for undertaking screening tests of potential active ingredients is given in annex A.

2 Normative references

This European Prestandard 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 Prestandard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 84, *Wood preservatives — Accelerated ageing of treated wood prior to biological testing — Leaching procedure*

EN ISO 3696, *Water for analytical laboratory use — Specification and test methods (ISO 3696:1987)*

3 Terms and definitions

For the purposes of this European Prestandard, the following terms and definitions apply:

3.1

representative sample

sample having its physical or chemical characteristics identical to the volumetric average characteristics of the total volume being sampled

3.2

supplier

sponsor of the test

4 Principle

A number of small test specimens (as small stakes) are impregnated with the preservative under test at a minimum of three concentrations ranged about the retention expected to provide protection throughout the test period. The test specimens are exposed to leaching according to EN 84. The specimens are partly buried vertically in a microbially active soil. Sets of test specimens are assessed after 8, 16, 24 and 32 weeks of exposure. The performance of the test preservative is evaluated by comparison with the performance of a reference preservative.

5 Test materials

5.1 Biological materials

5.1.1 Soil

Natural top soil or a fertile loam-based horticultural soil ¹⁾ of pH 6 to pH 8 and not containing added agro-chemicals. It shall have a waterholding capacity (WHC) of between 25 % (m/m) and 60 % (m/m).

NOTE 1 A suitable method for determining WHC is described in annex B.

¹⁾ A horticultural soil of the John Innes No.2 type and with the following composition has been found to be suitable; seven parts by volume loam, three parts by volume sphagnum peat, two parts by volume sharp sand plus 0,6 g chalk and 6,0 g slow release fertilizer per litre of soil mixture. If the WHC is too high, it can be lowered by modifying the soil with the addition of sand.