Puidukaitsevahendid - Kaitsevõime määramine Lyctus brunneus (stephens)'i vastu - Osa 2: Pealekandmine immutamise teel (laboratoorne meetod)

Wood preservatives - Determination of the protective effectiveness against Lyctus brunneus (Stephens) - Part 2: Application by impregnation (laboratory method)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 20-2:2003 sisaldab Euroopa standardi EN 20-2:1993 ingliskeelset teksti.	This Estonian standard EVS-EN 20-2:2003 consists of the English text of the European standard EN 20-2:1993.
Käesolev dokument on jõustatud 19.03.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 19.03.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 71.100.50

Contents

Foreword

This Part of EN 20 has been prepared by the 'Lyctus' Expert Group of CEN/TC 38 'Durability of wood and wood-based products', the Secretariat of which is held by AFNOR.

This Part of EN 20, together with EN 20-1, replaces EN 20 : 1974. It is required to enable assessments of the effectiveness of wood preservatives which are intended to be applied by impregnation.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by October 1993 at the latest.

This Part of EN 20 was adopted by CEN, and 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

This Part of this EN 20 describes a laboratory method of test which gives a basis for assessment of the effectiveness of a wood preservative, against Lyctus brunneus. It allows the determination of the concentration at which the preservative completely prevents the development of infestation from egg-laying in fully impregnated wood of susceptible species.

The species Lyctus brunneus is chosen because of its particular practical relevance and because it can be used easily in laboratory tests. The method can be used with other lyctid species, but the results may not be comparable with those obtained with Lyctus brunneus.

The test specimens are enriched with a defined nutrient solution, before exposure to egg-laying, in order to ensure uniformity of nutrient quality of test specimens between different laboratories.

This laboratory method provides one criterion by which the value of a product can be assessed. In making this assessment the methods by which the preservative may be applied should be taken into account. It is further recommended that results from this test should be supplemented by those from other appropriate tests, and above all by comparison with practical experience.

When products which are very active at low concentrations are used it is very important to take suitable precautions to isolate and separate, as far as possible, operations involving chemical products, other products, treated wood, laboratory apparatus and clothing. Suitable precautions should include the use of separate rooms, areas within rooms, extraction facilities, conditioning chambers and special training for personnel.

1 SCOPE

This Part of EN 20 specifies a method for the determination of the protective effectiveness or the toxic values of a wood preservative against infestation by Lyctus brunneus (Stephens) in wood which has been treated previously by full impregnation.

This method is applicable to :

- water-insoluble chemicals which are being studied as active insecticides, or,

- organic formulations, as supplied or as prepared in the laboratory by dilution of concentrates.

This method is not applicable to water-based preservatives

NOTE : - This method may be used in conjunction with ageing procedures which do not remove the added nutrient.

2 NORMATIVE REFERENCE

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.

ISO 3696:1987 Water for analytical laboratory use – Specification and test methods

3 DEFINITIONS

For the purposes of this Part of EN 20, the following definitions apply

3.1 representative sample

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

3.2 supplier

The sponsor of the test.

4 PRINCIPLE

Depending on the test being carried out either

a set of test specimens of a susceptible wood species is impregnated with a nutrient solution and then impregnated with a solution of the preservative ; or

if toxic values are to be determined, several sets of test specimens of a susceptible wood species are impregnated with a nutrient solution and then impregnated with a series of solutions in which the concentration of preservative is ranged in a given progression.

The treated test specimens are exposed to adult Lyctus brunneus and the resulting attack compared to that in untreated controls. If the preservative has been prepared in the laboratory by dilution of a concentrate or by dissolution of a solid, the resulting attack is also compared to that in solvent or diluent treated controls.

5 TEST MATERIALS AND APPARATUS

5.1 Biological material

Lyctus brunneus (Stephens), insects emerged from cultures not more than 48 h before use in the test, reared for at least two generations on non-enriched oak or no more than three generations on enriched oak.

NOTE : The culturing of Lyctus brunneus requires care in order to obtain a regular supply of adults which have not already laid eggs.
The culturing technique, which experience has shown to be suitable, is described in annex B.

5.2 Products and reagents

5.2.1 **Paraffin wax**, for sealing the relevant surfaces of test specimens treated with solutions.

NOTE : Paraffin wax with a setting point of 52 °C to 54 °C has been found to be suitable.

5.2.2 **Filter paper**, ordinary quality medium-fast grade.

5.2.3 **Paste**, for securing filter paper. The paste shall be starch-free, non-toxic to Lyctus and insoluble in the product under test.