SLOVENSKI STANDARD
SIST EN 73:2015

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Nadomešča:
SIST EN 73:1996
SIST EN 73:1996/AC:2002

Zaščitna sredstva za les - Pospešeno staranje zaščitenega lesa pred biološkim preskušanjem - Postopek izparevanja

Wood preservatives - Accelerated ageing of treated wook prior to biological testing - Evaporative ageing procedure

Holzschutzmittel - Beschleunigte Alterung von behandeltem Holz vor biologischen Prüfungen - Verdunstungsbeanspruchung

Produits de préservation des bois - Epreuves de vieillissement accéléré des bois traités avant essais biologiques - Epreuve d'évaporation

Ta slovenski standard je istoveten z: **EN 73:2014**

ICS:

71.100.50	Kemikalije za zaščito lesa	Wood-protecting chemicals

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 73

October 2014

ICS 71.100.50

Supersedes EN 73:1988

English Version

Wood preservatives - Accelerated ageing of treated wood prior to biological testing - Evaporative ageing procedure

Produits de préservation du bois - Épreuves de vieillissement accéléré des bois traités avant essais biologiques - Épreuve d'évaporation

Holzschutzmittel - Beschleunigte Alterung von behandeltem Holz vor biologischen Prüfungen - Verdunstungsbeanspruchung

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 73:2014) has been prepared by Technical Committee CEN/TC 38 “Durability of wood and wood-based products”, the secretariat of which 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of an identical text or by endorsement, at the latest by April 2015 and conflicting national standards shall be withdrawn at the latest by April 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 73:1988.

Compared to EN 73:1988 the following modifications have been made:

a) an Introduction has been added;

b) grids have been introduced in 5.1 to carry the test specimens.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

During its service life, preservative-treated wood can be exposed to conditions which may cause the volatilization and removal of the wood preservative thereby reducing its effectiveness.

This European Standard provides a laboratory based method for ageing test blocks which are to be subject to biological testing.

1 Scope

This European Standard specifies an evaporative ageing procedure, applicable to test specimens of wood which have been previously treated with a wood preservative, in order to evaluate any loss of effectiveness when these test specimens are subsequently subjected to biological tests.

2 Principle

Test specimens are prepared for biological testing of the effectiveness of wood preservatives against either fungi or insects using the appropriate standards methods. Test specimens are exposed, for a specified period, in a dust-free current of air of a defined velocity and temperature.

3 Equipment

3.1 A wind tunnel which is compartmented and fitted with devices for heating and distributing air.

The air shall be dust-free and shall not be polluted by chemical products which could have an effect on the test results.

The heating and distribution devices shall be such that the temperature and air velocity are maintained constant and uniform in each compartment.

The air leaving the tunnel shall be led away in such a manner that it cannot re-enter the tunnel.

3.2 A device which:

a) controls the temperature within the defined limits stated in 5.2;

b) measures and records the air temperature within the defined limits as stated in 5.2.

3.3 An anemometer capable of measuring air velocity of (1 ± 0,3) m/s.

4 Test specimens

4.1 Definitions and origin

The test specimens and their preparation are defined in the standards concerning the biological tests to which they are intended to be subjected.

The evaporative ageing procedure shall be carried out no more than 3 months after the end of the conditioning period that follows the treatment of the test specimens described in the relevant biological test standard. An alternative period can be used if specified by the product supplier. This shall be stated in the test report.

4.2 Number of test specimens

The number of test specimens shall allow the relevant biological tests to be carried out in accordance with the instructions in the appropriate standards, bearing in mind that the evaporative ageing procedure shall be applied equally to treated test specimens that are subjected to biological agents and to control test specimens.

The control test specimens may be of the following kinds where required by the relevant test standard:

— treated control test specimens that will not be subjected to attack by biological agents after the evaporative ageing procedure. These will serve as controls for changes in mass in those tests in which this factor is taken into consideration;

— untreated control specimens which, after evaporative ageing, are subjected to the test by biological agents, to check any variation in the behaviour of untreated wood.

5 Procedure

5.1 Arrangement of the test specimens

Arrange the test specimens in the compartments on grids made from metal or any other inert material which can be decontaminated, resting them with one of their faces on the base so that none of the other faces is less than 10 mm from the side partitions. The faces parallel to the grain of the wood shall be parallel to the general direction of air flow and they shall be at least 10 mm from the corresponding faces of the adjacent test specimens. Do not place in the same compartment either test specimens treated with different products or with different concentrations or loadings of the same product or treated and control specimens. Arrange the test specimens according to type, as follows:

— **Test specimens treated on all surfaces**

Rest the test specimens on one of the small faces parallel to the grain of wood with the faces that are perpendicular to the grain of the wood at least 20 mm away from the corresponding faces of adjacent test pieces.

For example, specimens intended for testing in accordance with EN 113 (basidiomycetes).

— **Test specimens for which the faces perpendicular to the grain of wood are sealed before treatment**

Arrange the test specimens as above. The sealed faces may, however, be brought closer together.

For example, specimens intended for testing in accordance with EN 118 (termites).

— **Test specimens with one treated face only**

Rest the test specimens on the opposite face to that which has been treated.

For example, test specimens intended for the test determining preventive action against termites (EN 118) and the larvae of *Hylotrupes bajulus*.

5.2 Starting and adjustment of the apparatus

With the test specimens in position, establish an air current controlled at a temperature of (40 ± 2) °C which enters the compartments at a speed of (1 ± 0,3) m/s.

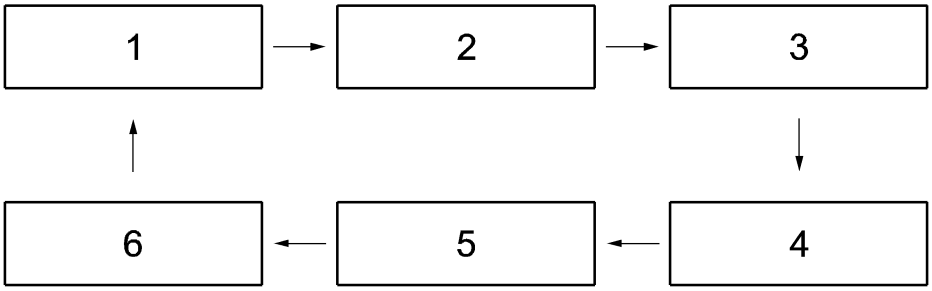
5.3 Procedure

Maintain the test specimens in the arrangement specified in 5.1 and under the conditions specified in 5.2 for two weeks (14 days).

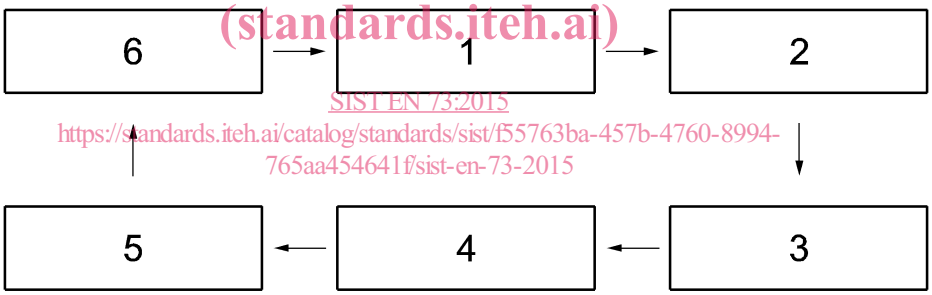
In order to obtain homogeneous evaporation from all the treated faces of a test specimen, rotate the test specimens through an angle of 180° on its small horizontal axis every two week (14 days) period (see Figure 2).

Test specimens with only one treated surface shall be rotated through an angle of 180° on their vertical axis every two weeks (14 days) period (see Figure 3).

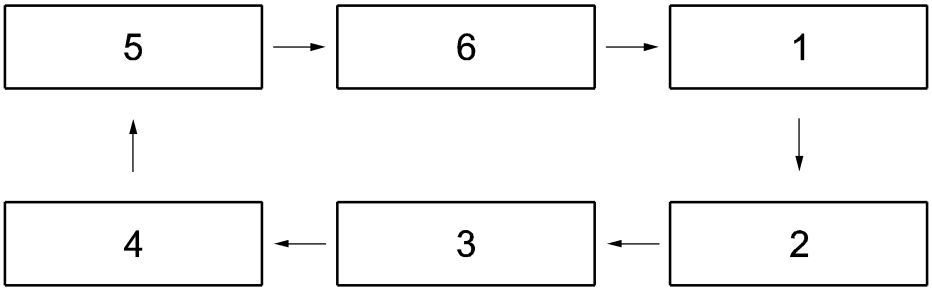
If a compartment contains more than one test specimen, at the same time as rotating the test specimens, change the position of the specimens within this compartment, the method depending on the number of test specimens which it contains and on the duration of the procedure (see Figure 1).



a) Position of test specimens in 1st week



b) Position of test specimens in 2nd week



c) Position of test specimens in 3rd week

Each progressive move is associated with a rotation (see Figures 2 and 3).

Figure 1 — Movement of test specimens in a compartment containing more than one test specimen