SLOVENSKI STANDARD
SIST EN 13744:2005

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Podloge za ġportne dejavnosti ï Postopki za pospeġeno staranje s potapljanjem v vroļ o vodo

Surfaces for sports areas - Procedure for accelerated ageing by immersion in hot water

Sportböden - Verfahren der beschleunigten Alterung durch Eintauchen in heißes Wasser

Sols sportifs - Méthode de vieillissement accéléré par immersion dans l'eau chaude

Ta slovenski standard je istoveten z: **EN 13744:2004**

ICS:

97.150	Netekstilne talne obloge	Non-textile floor coverings
97.220.10	Športni objekti	Sports facilities

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EUROPEAN STANDARD

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English version

Surfaces for sports areas - Procedure for accelerated ageing by immersion in hot water

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Sportböden - Verfahren der beschleunigten Alterung durch Eintauchen in heißes Wasser

This European Standard was approved by CEN on 29 July 2004.

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.

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Contents

Foreword

This document (EN 13744:2004) has been prepared by Technical Committee CEN/TC 217 “Surfaces for sports areas”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by April 2005, and conflicting national standards shall be withdrawn at the latest by April 2005.

It is one of two standards for procedures for ageing surfaces for sports areas. The other standard in this series has the following title:

EN 13817, *Surfaces for sports areas — Procedures for accelerated ageing by exposure to hot air*

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

1 Scope

This document describes a procedure for subjecting test pieces taken from surfaces for sports areas to accelerated ageing by immersion in hot water. Test pieces are aged to permit a comparison of their physical characteristics before and after ageing in accordance with European Standard test methods for surfaces for sports areas.

This method is suitable for ageing all types of sports surfaces, except for wooden surfaces, using test pieces in the laboratory, but is primarily intended for ageing polymeric surfaces. The procedure allows a measure of the effect on the physical characteristics of the sports surface due to exposure to water at elevated temperatures to be made.

NOTE Results from tests on materials which exhibit temporary changes in properties due to moisture should be interpreted with caution.

2 Principle

Test pieces are exposed to water at an elevated temperature to permit selected physical characteristics of the surface to be assessed before and after test.

3 Apparatus

3.1 **Water bath**, capable of being maintained at (70 ± 2) °C.

3.2 **Small weights**, to assist with immersion if necessary.

4 Test pieces

Select, prepare and condition the test piece(s) in accordance with the appropriate method of test.

Test pieces shall be such that no mechanical, chemical or heat treatment will be required after their removal from the water bath.

Any material used for marking test pieces shall not be applied in any critical area of the test piece and shall not damage the surface or be destroyed during ageing.

NOTE Wherever possible, marking should be carried out after ageing of the test piece.

5 Procedure

Immerse test pieces in the water bath (3.1) maintained at a temperature of (70 ± 2) °C, the test pieces being freely exposed to the ageing environment on all sides. If necessary, use the small weights (3.2) to submerge the test pieces in the water bath.

Leave the test pieces in the water bath for (336 ± 2) h.

Remove the test pieces from the water bath and condition them together with an un-aged sample for not less than 16 h and for no more than 6 d in a relaxed condition in accordance with the test method for the particular characteristic being assessed.

NOTE Simultaneous ageing of different test pieces in the same water bath should be avoided, to prevent migration of anti-degradants or plasticizers, etc.

6 Comparison tests

To compare properties before and after accelerated ageing, carry out tests on un-aged test pieces at the same time and under the same conditions as those on test pieces having been subjected to accelerated ageing. Only compare test pieces of similar dimensions and having approximately the same exposed areas.

7 Calculation and expression of results

Calculate the results as specified by the appropriate method of test. If required, calculate the percentage change in the property using the following expression:

$$C = \frac{A - O}{O} \times 100$$

where

C is the percentage change in the property;

A is the aged value of the property, e.g. % impact absorption;

O is the un-aged value of the property.

8 Test report

The test report shall include the following:

a) reference to this document, i.e. EN 13744:2004;

b) reference to the procedure used to select the test pieces and determine their characteristics, e.g. a European Standard test method;

c) complete identification of the surface tested including manufacturer's reference, type and depth of supporting layers, and method of attachment and previous history;

d) physical characteristics determined, with their values before and after ageing, and, if required, their percentage change, calculated in accordance with Clause 7;

e) individual test results, if required.