

Methods of test for screed materials - Part 4: Determination of wear resistance-BCA

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Determination of wear resistance-BCA

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13892-4:2003 sisaldab Euroopa standardi EN 13892-4:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13892-4:2003 consists of the English text of the European standard EN 13892-4:2002.</p> <p>This document is endorsed on 18.02.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This European Standard specifies a method for determining the wear resistance of test specimens made from cementitious- or synthetic resin screed material or optionally for other screed materials. The method is also suitable for floor screeds</p>	<p>Scope:</p> <p>This European Standard specifies a method for determining the wear resistance of test specimens made from cementitious- or synthetic resin screed material or optionally for other screed materials. The method is also suitable for floor screeds</p>
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ICS 91.100.10

Võtmesõnad: floor beds, floor coverings, floors, fresh mortar, inspection, magnesia floor screeds, material, mortars, properties, ready-made mortars, screeds (floors), specification (approval), specifications, strength of materials, testing, wear, wear resistance

ICS 91.100.10

English version

Methods of test for screed materials - Part 4: Determination of wear resistance-BCA

Méthodes d'essais des matériaux pour chapes - Partie 4:
Détermination de la résistance à l'usure BCA

Prüfverfahren für Estrichmörtel - Teil 4: Bestimmung des
Verschleißwiderstands nach BCA

This European Standard was approved by CEN on 9 October 2002.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 13892-4:2002) has been prepared by Technical Committee CEN/TC 303, "Floor screeds and in-situ floorings in buildings", the secretariat of which is held by DIN.

It was prepared by Working Group 2 "Screed materials and floor screeds – Test methods" taking into account the proposals submitted by Working Group 1 "Screed materials and floor screeds – Definitions, properties and requirements".

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 May 2003, and conflicting national standards shall be withdrawn at the latest by May 2003.

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

1 Scope

This European Standard specifies a method for determining the wear resistance of test specimens made from cementitious- or synthetic resin screed material or optionally for other screed materials. The method is also suitable for floor screeds.

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 (including amendments).

EN 13813, *Screed material and floor screeds - Screed material - Properties and requirements*

EN 13892-1, *Test Methods for screed materials – Part 1: Sampling, making and curing specimens for test.*

3 Principle

The wear resistance-BCA of the screed surface is assessed by measuring the mean depth of wear caused by a machine with three hardened steel wheels rotating over a ring shaped area for a fixed number of revolutions under a standard load. The mean depth of wear within the ring pattern is used to indicate the wear resistance of the screed surface at the test location.

4 Symbols

AR is the wear resistance-BCA, which is the mean depth of wear in μm .

d_o is the mean depth of the measurements made at all eight measuring points prior to testing in μm .

d_w is the mean depth of the measurements made at all eight measuring points after completion of the test in μm .

5 Apparatus

5.1 BCA abrasion test machine

The test machine has the following features, see Figure 1.

- a) An abrasion head consisting of three through hardened steel wheels as described in e), tangentially mounted onto a circular steel plate at equal radial intervals so the wheels can freely rotate in a circular path with a nominal mean diameter of (225 ± 1) mm. The wheels are not free to rotate about their vertical axes.
- b) An abrasion head is connected by a shaft to an electric motor and gear box capable of rotating the abrasion head at a manufacturer's rated speed of $(180 \pm 15) \text{ min}^{-1}$ for (2850 ± 10) revolutions.