

**Methods of test for screed materials -
Part 6: Determination of surface
hardness**

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Determination of surface hardness

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13892-6:2002 sisaldab Euroopa standardi EN 13892-6:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 13.12.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13892-6:2002 consists of the English text of the European standard EN 13892-6:2002.</p> <p>This document is endorsed on 13.12.2002 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: This European standard specifies a method for determining the surface hardness of moulded mortar specimens made from magnesite screed material or from cementitious screed-, calcium sulphate screed-, magnesia screed- and synthetic resin screed material with fine aggregates (<4 mm). The method is also suitable for specimens cut from floor screed</p>	<p>Scope: This European standard specifies a method for determining the surface hardness of moulded mortar specimens made from magnesite screed material or from cementitious screed-, calcium sulphate screed-, magnesia screed- and synthetic resin screed material with fine aggregates (<4 mm). The method is also suitable for specimens cut from floor screed</p>
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ICS 91.100.10

Võtmesõnad: area, floor coverings, floors, hardness, inspection, magnesia floor screeds, material, mortars, properties, ready-made mortars, screeds (floors), specification (approval), specifications, strength of materials, surface hardness, surfaces, testing

ICS 91.100.10

English version

Methods of test for screed materials - Part 6: Determination of surface hardness

Méthodes d'essai des matériaux pour chapes - Partie 6:
Détermination de la dureté superficielle

Prüfverfahren für Estrichmörtel und Estrichmassen - Teil 6:
Bestimmung der Oberflächenhärte

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

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Contents

	page
Foreword.....	3
1 Scope	4
2 Normative references	4
3 Principle	4
4 Symbols and abbreviations	4
5 Apparatus	4
6 Procedure	5
7 Test report	5
Bibliography	7

Foreword

This document (EN 13892-6:2002) 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 surface hardness of moulded mortar specimens made from magnesite screed material or from cementitious screed-, calcium sulphate screed-, magnesia screed- and synthetic resin screed material. This method is only suitable for screed materials having aggregates of size less than 4 mm.

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 surface hardness is determined by measuring the permanent depth of indentation produced by a steel ball placed on the surface under a standard load. The surface hardness is calculated as the load on the ball divided by the surface area of indentation.

NOTE: On completion of the measurement of surface hardness, the flexural and compressive strength may be measured on the same specimens.

4 Symbols and abbreviations

d is the diameter of the steel ball

t is the indentation depth

F_v is the initial load of $(10 \pm 0,1)$ N

F is the main load of (500 ± 5) N

SH is the surface hardness in N/mm^2 , as determined from the test parameters

5 Apparatus

Hardness tester capable of applying vertically an initial and a main load on to a $(10 \pm 0,01)$ mm steel ball with precise measurement of the vertical movement using a dial gauge with 0,001 mm scale intervals.

NOTE The steel ball may be embedded in the end of a steel bar, through which the loads are applied.