# Methods of test for screed materials -Part 5: Determination of wear resistance to rolling wheel of screed material for wearing layer

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#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13892-
5:2003 sisaldab Euroopa standardi EN
13892-5:2003 ingliskeelset teksti.

Käesolev dokument on jõustatud 14.08.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 13892-5:2003 consists of the English text of the European standard EN 13892-5:2003.

This document is endorsed on 14.08.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

#### Käsitlusala:

This European Standard specifies a method for determining the wear resistance to a heavily loaded rolling wheel on moulded mortar specimens made from cementitious screed- and synthetic resin screed material or optionally for other screed materials for wearing surface

#### Scope:

This European Standard specifies a method for determining the wear resistance to a heavily loaded rolling wheel on moulded mortar specimens made from cementitious screed- and synthetic resin screed material or optionally for other screed materials for wearing surface

ICS 91.100.10

**Võtmesõnad:** design, floor beds, floor coverings, floors, fresh mortar, inspection, magnesia floor screeds, material, mortars, properties, ready-made mortars, resistance to rolling, screeds (floors), specification (approval), specifications, testing, wear layers

## EUROPEAN STANDARD

## EN 13892-5

## NORME EUROPÉENNE EUROPÄISCHE NORM

June 2003

ICS 91,100,10

#### **English version**

# Methods of test for screed materials - Part 5: Determination of wear resistance to rolling wheel of screed material for wearing layer

Méthodes d'essais des matériaux de chape - Partie 5: Détermination de la résistance à l'usure par roulette pivotante - Méthodes pour matériaux de chape avec couche d'usure Prüfverfahren für Estrichmörtel und Estrichmassen - Teil 5: Bestimmung des Widerstandes gegen Rollbeanspruchung von Estrichen für Nutzschichten

This European Standard was approved by CEN on 3 April 2003.

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 Management Centre 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

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#### **Foreword**

This document (EN 13892-5:2003) 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.

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 December 2003, and conflicting national standards shall be withdrawn at the latest by December 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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, The South Control of the Control of Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

#### Introduction

This European Standard was prepared by Working Group 2 "Screed material and floor screeds-Test-methods" taking into account the proposals submitted by Working Group 1 "Screed material and floor screeds-Definitions, properties and requirements".

No existing European Standard is superseded.

#### 1 Scope

This European Standard specifies a method for determining the wear resistance to a heavily loaded rolling wheel on moulded mortar specimens made from cementitious screed material or synthetic resin screed material or optionally for other screed materials intended for wearing surface.

#### 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 10084, Case hardening steels - Technical delivery conditions.

EN 13813, Screed materials and floor screeds – Screed material – Properties and requirements.

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

ISO 606, Short-pitch transmission precision roller chains and chain wheels.

### 3 Symbols and abbreviations

RWA wear resistance to Rolling Wheel, expressed in cm<sup>3</sup>

d depth of wear in μm

#### 4 Principle

Concrete slabs surfaced with screed material are subjected to the repeated passages of a heavily loaded rolling wheel. The specimen fixed to a support moves under a heavily loaded castor wheel in two perpendicular directions at different frequencies. The movement creates normal and shear stress onto the screed material. At the points where the castor turns, shear stress caused by a torsion action is superimposed.

The abrasion resistance is determined by the change in surface profile.