

### SLOVENSKI STANDARD oSIST prEN 13892-9:2017

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#### Metode preskušanja mešanice za estrih - 9. del: Ugotavljanje krčenja in nabrekanja

Methods of test for screed materials - Part 9: Determination of shrinkage and swelling

Prüfverfahren für Estrichmörtel und Estrichmassen - Teil 9: Bestimmung des Quell- und Schwindverhaltens

Méthodes d'essais des matériaux pour chapes - Partie 9 : Disposition du gonflement et retrait

Ta slovenski standard je istoveten z: prEN 13892-9

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91.100.10 Cement. Mavec. Apno. Malta Cement. Gypsum. Lime. Mortar

oSIST prEN 13892-9:2017 en,fr,de oSIST prEN 13892-9:2017

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## DRAFT prEN 13892-9

February 2017

ICS 91.100.10

#### **English Version**

### Methods of test for screed materials - Part 9: Determination of shrinkage and swelling

Méthodes d'essai des matériaux pour chapes - Partie 9 : Détermination du gonflement et retrait

Prüfverfahren für Estrichmörtel und Estrichmassen -Teil 9: Bestimmung des Schwindens und Quellens

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 303.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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 CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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#### prEN 13892-9:2017 (E)

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prEN 13892-9:2017 (E)

### **European foreword**

This document (prEN 13892-9:2017) has been prepared by Technical Committee CEN/TC 303 "Floor screeds and screed materials", the secretariat of which is held by UNI.

This document is currently submitted to the CEN Enquiry.

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prEN 13892-9:2017 (E)

### 1 Scope

This European Standard specifies a method for determining the dimensional stability (i.e. the shrinkage and swelling) of cementitious screed, calcium sulfate screed, magnesite screed and synthetic resin screed materials made in accordance with EN 13892-1.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13454-2, Binders, composite binders and factory made mixtures for floor screeds based on calcium sulfate — Part 2: Test methods

EN 13813, Screed material 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

### 3 Principle

This test method measures the unrestrained linear movement, shrinkage and swelling, of screed materials in a 1000 mm curling profile apparatus. A special feature of this test method is the earliest possible commencement of measurements.

Shrinkage and swelling is measured on screed materials made in accordance with EN 13892-1.

Irrespective of the consistency of the screed material, monitoring of horizontal length change commences as soon as possible after the mould is filled and not later than 1 hour after mixing. When measurements of length reach a steady-state the monitoring process ends.

The apparatus monitors the change in length of the specimen over time. Shrinkage is calculated by comparing the difference between the measured local maximum length and the measured length at steady-state (end of length change).

### 4 Symbols and abbreviations and sist/f5521365-6987-4b31-ab55-816f08cd5351/sist-en-13892-9-2018

L horizontal length change ( $\mu$ m) Lstart start of length change ( $\mu$ m)

 $L_{\min}$  local minimum in length change curve ( $\mu$ m)  $L_{\max}$  local maximum in length change curve ( $\mu$ m)

 $L_{\rm end}$  end of length change ( $\mu$ m)

 $\Delta L = L_{\text{max}} - L_{\text{end}}$  shrinkage (µm)  $\Delta S = L_{\text{start}} - L_{\text{end}} > 0$  swelling (µm)

*M* moisture content in percentage

 $m_{\rm b}$  weight at beginning (g)  $m_{\rm d}$  weight after drying (g)