



# SLOVENSKI STANDARD

## SIST EN 12002:1998

01-april-1998

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Adhezivni spoji za ploščice in  
zidne malte

Adhesives for tiles - Determination of transverse deformation for cementitious adhesives and grouts

Mörtel und Klebstoffe für Fliesen und Platten - Bestimmung der Verformung zementhaltiger Mörtel und Fugen

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Colles a carrelage - Détermination de la déformation transversale d'un mortier-colle ou d'un mortier de joint pour carrelages

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Ta slovenski standard je istoveten z: EN 12002:1997

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### ICS:

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

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en

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EUROPEAN STANDARD

EN 12002

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 1997

ICS 91.100.10

Descriptors: tiles, ceramic coatings, glue, tests, determination, deformation, testing conditions

English version

## Adhesives for tiles - Determination of transverse deformation for cementitious adhesives and grouts

Colles à carrelage - Détermination de la déformation transversale d'un mortier-colle ou d'un mortier de joint pour carrelages

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This European Standard was approved by CEN on 1997-02-27. 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.

The European Standards exist 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.

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

### CEN

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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**Foreword**

This European Standard has been prepared by Technical Committee CEN/TC 67 'Ceramic tiles', the secretariat of which is held by UNI.

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 September 1997, and conflicting national standards shall be withdrawn at the latest by September 1997.

This Standard is one of a series of Standards for tests on tile adhesives including:

EN 1308	Adhesives for tiles - Determination of slip
EN 1322	Adhesives for tiles - Definitions and terminology
EN 1323	Adhesives for tiles - Concrete slab for test
EN 1324	Adhesives for tiles - Determination of shear adhesion strength of dispersion adhesives
EN 1346	Adhesives for tiles - Determination of open time
EN 1347	Adhesives for tiles - Determination of wetting capability
EN 1348	Adhesives for tiles - Determination of tensile adhesion strength for cementitious adhesives
EN 12002	Adhesives for tiles - Determination of transverse deformation for cementitious adhesives and grouts
EN 12003	Adhesives for tiles - Determination of shear adhesion strength of reaction resin adhesives
prEN 12004	Adhesives for tiles - Specifications and requirements
prEN.....	(W.I. 00067057) Adhesives and grouts for tiles- Determination of chemical resistance of reaction resin mortars

It is intended that other European standards should call up EN 12002 test methods as the basis of evaluation of conformity. (Nevertheless it is not intended that all adhesives for tiles should be subjected regularly to all the listed tests. Specifications in other standards should call up only relevant test methods).

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This document does not supersede any existing European standard.

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

## 1 Scope

The following European Standard specifies the test method to be used to determine the transverse deformation of cementitious ceramic tile adhesives and grouts.

This Standard is applicable to all cementitious ceramic tile adhesives and grouts for internal and external tile installations on floors and walls.

It is not applicable to ceramic tile adhesives and grouts which possess elastomeric properties, such as many dispersion and reaction resin adhesives and grouts.

This European Standard does not contain performance requirements or recommendations for the design and installation of ceramic tiles.

NOTE : Ceramic tile adhesives can also be used for other kinds of tiles (natural and agglomerated stones, etc.), where these do not adversely affect the stones.

## 2 Normative References

This European Standard incorporates, by dated or undated reference, provisions from other publications. These 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 draft European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 196-1 Method of testing cement -Part 1: Determination of strength  
prEN 1066 Adhesives - Sampling  
prEN 1067 Adhesives - Examination and preparation of samples for testing

## 3 Sampling

Take a sample of at least 2 kg of the adhesive or grout in accordance with prEN 1066 and prEN 1067.

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## 4 Test conditions

Standard conditions shall be  $(23 \pm 2)^\circ \text{C}$  and  $(50 \pm 5)\% \text{R.H.}$  and air velocity in the working area of less than 0,2 m/s.

## 5 Test materials

Condition all test materials for at least 24 hours under standard conditions. The adhesive or grout to be tested shall be within its shelf life, where this is specified.

### 5.1 Substrate

The substrate shall be polyethylene film of minimum thickness 0,2 mm.

### 5.2 Closed bag

Polyethylene bag of size to give about 100 mm clearance over the test piece.

### 5.3 Support

Rigid, smooth and flat support for the polyethylene film.

## 6 Apparatus

### 6.1 Anvil

A metallic construction conforming to the dimensions of figure 1.

All dimensions in millimetres

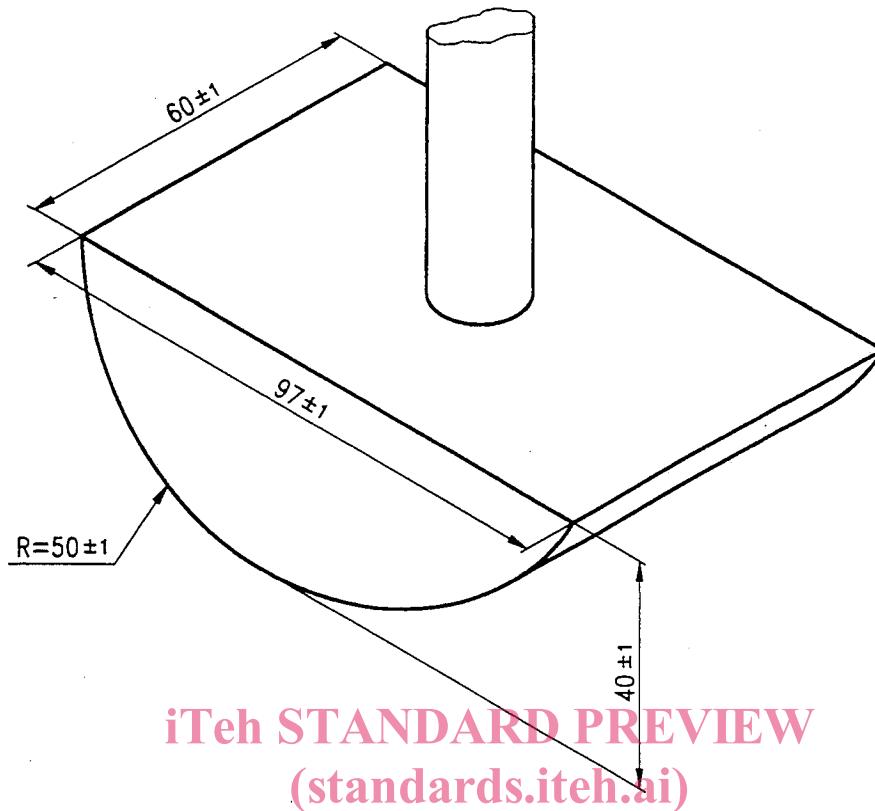


Figure 1 - Anvil

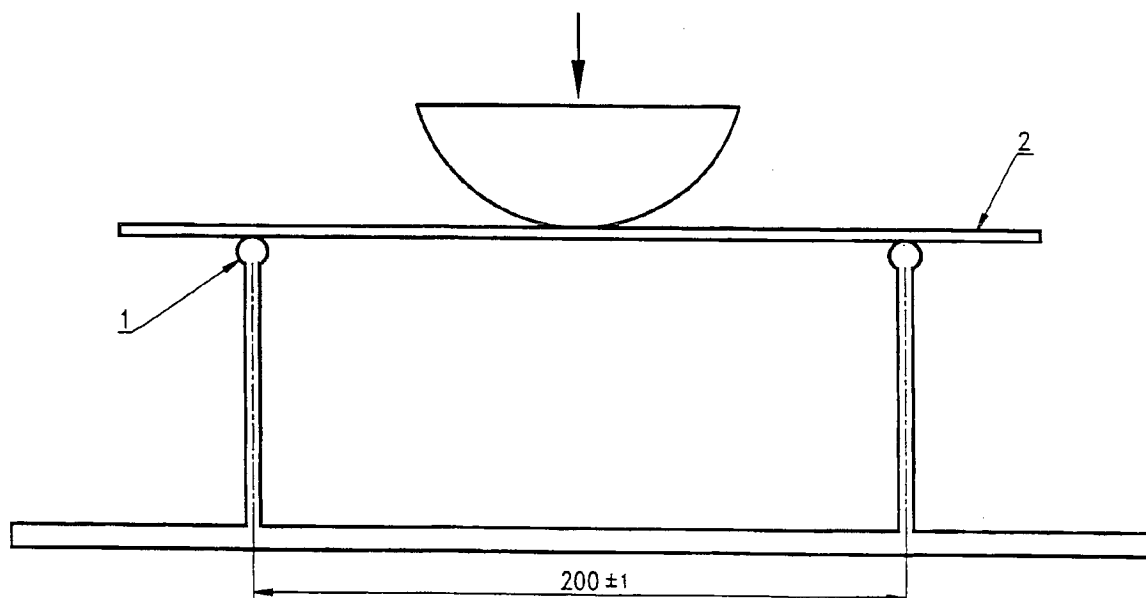
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## 6.2 Test jig

<https://standards.iteh.ai/catalog/standards/sist/0c2a24f9-f6a1-465d-ab3d-875c8b04d318/sist-en-12002-1998>

Two metallic cylindrical supports, of diameter  $(10 \pm 0,1)$  mm, spaced  $(200 \pm 1)$  mm centre to centre, of length 60 mm minimum. See figure 2.

All dimensions in millimetres



- 1 Cylindrical support, diameter  $(10 \pm 0,1)$  mm, length 60 mm minimum
- 2 Adhesive  $(3 \pm 0,3)$  mm thick

Figure 2 - Test rig

### 6.3 Template

A smooth, rigid, non absorbent rectangular frame of internal dimensions  $(280 \pm 1)$  mm x  $(45 \pm 1)$  mm and thickness  $(3 \pm 0,1)$  mm; e.g. made from polytetrafluoroethylene (PTFE).

NOTE: A round hole of about 2 mm diameter drilled at each internal corner is recommended to facilitate the production of the test piece. See figure 3.

All dimensions in millimetres

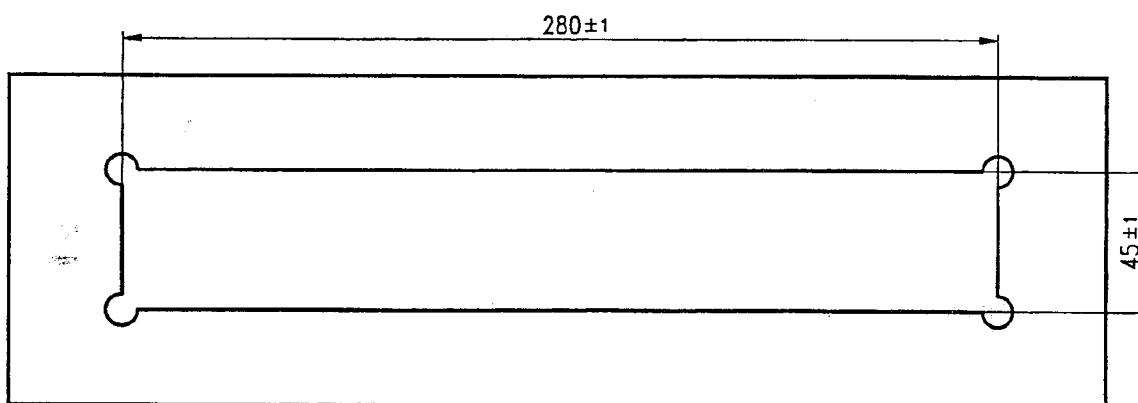


Figure 3 - Template

### 6.4 Test machine

The test machine shall be a press, capable of applying the anvil (see 6.1) to the test piece at a rate of 2 mm/min.

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### 7 Mixing of adhesive or grout

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The amount of water and/or liquid admixture required for preparing the adhesive or grout shall be as stated by the manufacturer in parts by mass, i.e. liquid to dry powder (if a range of values is given, the mean shall be used).

Prepare a minimum of 2 kg of powder in a mixer of the type described in Clause 4.4 of EN 196, using the slow speed settings,  $(140 \pm 5)$   $\text{min}^{-1}$  rotation and  $(62 \pm 5)$   $\text{min}^{-1}$  planetary movement using the following procedure :

- pour the liquid into the pan;
- scatter the dry powder over the liquid;
- mix for 30 seconds;
- take out the mixing paddle;
- scrape down the paddle and pan within 1 minute;
- replace the paddle and mix for 1 minute.

If required by the adhesive or grout manufacturer's instructions, let the adhesive or grout mature and then mix for a further 15 seconds.

### 8 Test method

#### 8.1 Preparation of substrate

Fix the polyethylene film firmly to the rigid support (see 5.3), ensuring the surface, to which the adhesive or grout is to be applied, is not distorted, e.g. without pleats or wrinkles.

#### 8.2 Preparation of test units

Hold the template firmly onto the polyethylene film.