# Kahlid. Osa 2: Mõõtmete ja pinna kvaliteedi määramine

Armin.

On Och Control of the Contro Ceramic tiles - Part 2: Determination of dimensions and surface quality



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 10545-2:2000 sisaldab Euroopa standardi EN ISO 10545-2:1997 ingliskeelset teksti. This Estonian standard EVS-EN ISO 10545-2:2000 consists of the English text of the European standard EN ISO 10545-2:1997.

Käesolev dokument on jõustatud 20.03.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

This document is endorsed on 20.03.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.

Standard on kättesaadav Eesti standardiorganisatsioonist.

The standard is available from Estonian standardisation organisation.

#### Käsitlusala:

See standardi ISO 10545 osa esitab meetodid dimensionaalsete karakteristikute (pikkus, laius, paksus, külgede sirgjoonelisus, pinna tasasus, täisnurksus) ja pinna kvaliteedi määramiseks. Alla 4 cm2 plaatidel ei mõõdeta pikkust, laiust, külgede sirgjoonelisust, täisnurksust ega pinna tasasust.

#### Scope:

See standardi ISO 10545 osa esitab meetodid dimensionaalsete karakteristikute (pikkus, laius, paksus, külgede sirgjoonelisus, pinna tasasus, täisnurksus) ja pinna kvaliteedi määramiseks. Alla 4 cm2 plaatidel ei mõõdeta pikkust, laiust, külgede sirgjoonelisust, täisnurksust ega pinna tasasust.

ICS 91.100.23

Võtmesõnad: katsed, keraamika, mõõtmed, mõõtmete kontrollimine, määramine, pinna kvaliteet, plaadid

# **EUROPEAN STANDARD** NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 10545-2

July 1997

.100.20

Supersedes EN 98: 1991.

Descriptors: Ceramics, tiles, surface quality, dimensions, testing.

#### **English version**

#### Ceramic tiles

art 2: Determination of dimensions and surface quality Q545-2: 1995, including Technical Corrigendum 1: 1997)

Carreaux et dalles céramiques -Partie 2: Détermination des caractéristiques dimensionnelles et de la qualité de surface

(ISO 10545-2: 1995, Rectificatif Technique 1:1997 inclus

Keramische Fliesen und Platten -Teil 2: Bestimmung der Maße und der Oberflächenbeschaffenheit (ISO 10545-2: 1995, einschließlich Technische Korrektur 1: 1997)

This European Standard was approved by CEN on 1997-05-01.

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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, 100 O and the United Kingdom.

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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EN ISO 10545-2: 1997

#### **Foreword**

International Standard

ISO 10545-2: 1995 Ceramic tiles - Part 2: Determination of dimensions and surface quality,

which was prepared by ISO/TC 189 'Ceramic tiles' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 67 'Ceramic tiles', the Secretariat of which is held by UNI, as a European Standard.

EN ISO 10545 comprises the following parts, under the common title 'Ceramic tiles':

- Part 1: Sampling and basis for acceptance
- Part 2: Determination of dimensions and surface quality
- Part 3: Determination of water absorption, apparent porosity, apparent relative density and bulk density
- Part 4: Determination of modulus of rupture and breaking strength
- Part 5: Determination of impact resistance by measurement of coefficient of restitution
- Part 6: Determination of resistance to deep abrasion for unglazed tiles
- Part 7: Determination of resistance to surface abrasion for glazed tiles
- Part 8: Determination of linear thermal expansion
- Part 9: Determination of resistance to thermal shock
- Part 10: Determination of moisture expansion
- Part 11: Determination of crazing resistance for glazed tiles
- Part 12: Determination of frost resistance
- Part 13: Determination of chemical resistance
- Part 14: Determination of resistance to stains
- Part 15: Determination of lead and cadmium given off by glazed tiles
- Part 16: Determination of small colour differences
- Part 17: Determination of coefficient of friction

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by January 1998 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

#### **Endorsement notice**

The text of the International Standard ISO 10545-2: 1995 and ISO Technical Corrigendum 1: 1997 have been approved by CEN as a European Standard without technical modifications, but with the following corrections: In subclause 5.1.1, 4th line, 'calculate' has been corrected to read 'calculated'.

In subclause 7.6, item d), 'the assessment of criteria used' has been corrected to read 'the assessment criteria used'.

#### 1 Scope

This part of ISO 10545 specifies methods for determining the dimensional characteristics (length, width, thickness, straightness of sides, rectangularity, surface flatness) and the surface quality of ceramic tiles.

Tiles with areas less than 4 cm<sup>2</sup> are excluded from measurements of length, width, straightness of sides, rectangularity and surface flatness.

Spacer lugs and glaze blobs and other irregularities of the sides shall be ignored when measuring length, width, straightness of sides, rectangularity, if these are subsequently hidden in the joints after fixing (installation).

#### 2 Measurement of length and width

#### 2.1 Apparatus

**2.1.1 Vernier calipers,** or other suitable apparatus for linear measurement.

#### 2.2 Test specimens

Ten whole tiles shall be submitted to measurement

#### 2.3 Procedure

Measure, to the nearest 0,1 mm, each side of the tile under test, at positions 5 mm from the corners.

#### 2.4 Expression of results

The average dimension of square tiles is the average of four measurements. The average dimension of the sample is the average of 40 measurements.

For oblong tiles, each similar pair of sides of a tile provides the appropriate average dimension of the tile, i.e. an average of two measurements. The average dimensions for length and width of the sample are the average of 20 measurements each.

#### 2.5 Test report

The test report shall include the following information:

- a) reference to this part of ISO 10545;
- b) a description of the tiles;
- c) all individual measurements of length and width;
- d) the average size of each test specimen for square tiles, and the average length and width for each oblong tile;
- e) the average size of the 10 test specimens for square tiles, and the average length and width for oblong tiles;
- f) the deviation, as a percentage, of the average size of each tile (two or four sides) from the work size;
- g) the deviation, as a percentage, of the average size of each tile (two or four sides) from the average size of the 10 test specimens (20 or 40 sides).

### Measurement of thickness

## 3. Opparatus

3.1.1 Micrometer screw gauge with anvils, of 5 mm to 10 mm diameter, or other suitable apparatus.