

## **Ceramic tiles - Part 16: Determination of small colour differences**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 10545-16:2001 sisaldab Euroopa standardi EN ISO 10545-16:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 16.02.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 10545-16:2001 consists of the English text of the European standard EN ISO 10545-16:2000.</p> <p>This document is endorsed on 16.02.2001 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><b>Käsitlusala:</b></p> <p>This part of EN ISO 10545 describes a method for utilizing colour measuring instruments for quantifying the small colour differences between plain coloured glazed ceramic tiles, which are designed to be of uniform and consistent colour. It permits the specification of a maximum acceptable value which depends only on the closeness of match and not on the nature of the colour difference.</p>	<p><b>Scope:</b></p> <p>This part of EN ISO 10545 describes a method for utilizing colour measuring instruments for quantifying the small colour differences between plain coloured glazed ceramic tiles, which are designed to be of uniform and consistent colour. It permits the specification of a maximum acceptable value which depends only on the closeness of match and not on the nature of the colour difference.</p>
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**Võtmesõnad:** ceramic tiles, ceramics, colorimetric analysis, colour, colour differences, colour tests, definition, definitions, determination, tiles

**English version**

**Ceramic tiles**

**Part 16: Determination of small colour differences  
(ISO 10545-16 : 1999)**

Carreaux et dalles céramiques –  
Partie 16: Détermination de faibles  
différences de couleur  
(ISO 10545-16 : 1999)

Keramische Fliesen und Platten –  
Teil 16: Bestimmung kleiner Farb-  
abweichungen (ISO 10545-16 : 1999)

This European Standard was approved by CEN on 2000-09-08.

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, and the United Kingdom.

**CEN**

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

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

## Foreword

International Standard

ISO 10545-16 : 1999 Ceramic tiles – Part 16: Determination of small colour differences, 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 consists of 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 March 2001 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 10545-16 : 1999 was approved by CEN as a European Standard without any modification.

## 1 Scope

This part of ISO 10545 describes a method for utilizing colour measuring instruments for quantifying the small colour differences between plain coloured glazed ceramic tiles, which are designed to be of uniform and consistent colour. It permits the specification of a maximum acceptable value which depends only on the closeness of match and not on the nature of the colour difference.

Colour variations produced for artistic purposes are not covered in this part of ISO 10545.

NOTE This test should only be used when small colour differences between plain coloured glazed tiles are important in a specification.

## 2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 10545. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 10545 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

CIE Publication No. 15.2:1986, *Colorimetry*.

ISO 105-J03:1995, *Textiles — Tests for colour fastness — Part J03: Calculation of colour differences*.

## 3 Definitions

For the purposes of this part of ISO 10545, the following definitions apply.

### 3.1

#### **chroma**

attribute of colour which is defined as deviation from grey of the same lightness

NOTE The more a colour deviates from grey, the higher the chroma.

### 3.2

#### **lightness**

parameter which relates the colour to a continuous grey scale between white and black