



NSAI
Standards

Irish Standard
I.S. EN ISO 10545-16:2012

Ceramic tiles - Part 16: Determination of small colour differences (ISO 10545-16:2010)

I.S. EN ISO 10545-16:2012

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NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

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English Version

**Ceramic tiles - Part 16: Determination of small colour differences
(ISO 10545-16:2010)**

Carreaux et dalles céramiques - Partie 16: Détermination
de faibles différences de couleur (ISO 10545-16:2010)

Keramische Fliesen und Platten - Teil 16: Bestimmung
kleiner Farbabweichungen (ISO 10545-16:2010)

This European Standard was approved by CEN on 29 January 2012.

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Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

The text of ISO 10545-16:2010 has been prepared by Technical Committee ISO/TC 189 “Ceramic tile” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 10545-16:2012 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of an identical text or by endorsement, at the latest by August 2012, and conflicting national standards shall be withdrawn at the latest by August 2012.

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The text of ISO 10545-16:2010 has been approved by CEN as a EN ISO 10545-16:2012 without any modification.

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I.S. EN ISO 10545-16:2012
**INTERNATIONAL
STANDARD**

**ISO
10545-16**

Second edition
2010-03-15

Ceramic tiles —

Part 16:
Determination of small colour differences

Carreaux et dalles céramiques —

Partie 16: Détermination de faibles différences de couleur



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Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10545-16 was prepared by Technical Committee ISO/TC 189, *Ceramic tile*.

This second edition cancels and replaces the first edition (ISO 10545-16:1999), 3.5 and 7.2 of which have been technically revised.

ISO 10545 consists of the following parts, under the general 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*

Ceramic tiles —

Part 16:

Determination of small colour differences

1 Scope

This part of ISO 10545 describes a method for utilizing colour measuring instruments for quantifying the small colour differences between plain coloured 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.

This part of ISO 10545 is not applicable to colour variations produced for artistic purposes.

NOTE This test is applicable only when small colour differences between plain coloured tiles are important in a specification or by agreement.

2 Normative references

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

ISO 105-J03:2009, *Textiles — Tests for colour fastness — Part J03: Calculation of colour differences*

CIE 015:2004, *Colorimetry*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

chroma

attribute of colour that 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 that relates the colour to a continuous grey scale between white and black

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