

# SLOVENSKI STANDARD

## SIST EN ISO 10545-2:2018

01-december-2018

Nadomešča:

SIST EN ISO 10545-2:1998

---

### Keramične ploščice - 2. del: Mere in kakovost površine (ISO 10545-2:2018)

Ceramic tiles - Part 2: Determination of dimensions and surface quality (ISO 10545-2:2018)

Keramische Fliesen und Platten - Teil 2: Bestimmung der Maße und der Oberflächenbeschaffenheit (ISO 10545-2:2018)

Carreaux céramiques - Partie 2: Détermination des caractéristiques dimensionnelles et de la qualité de surface (ISO 10545-2:2018)

<https://standards.iteh.ai/catalog/standards/sist/523ec767-7236-47d1-969b-2e9fe008d2c9/sist-en-iso-10545-2-2018>

**Ta slovenski standard je istoveten z: EN ISO 10545-2:2018**

---

#### **ICS:**

|           |                    |               |
|-----------|--------------------|---------------|
| 91.100.23 | Keramične ploščice | Ceramic tiles |
|-----------|--------------------|---------------|

**SIST EN ISO 10545-2:2018**

**en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN ISO 10545-2:2018

<https://standards.iteh.ai/catalog/standards/sist/523ec767-7236-47d1-969b-2e9fe008d2c9/sist-en-iso-10545-2-2018>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 10545-2**

October 2018

ICS 91.100.23

Supersedes EN ISO 10545-2:1997

English Version

**Ceramic tiles - Part 2: Determination of dimensions and  
surface quality (ISO 10545-2:2018)**

Carreaux céramiques - Partie 2: Détermination des  
caractéristiques dimensionnelles et de la qualité de  
surface (ISO 10545-2:2018)

Keramische Fliesen und Platten - Teil 2: Bestimmung  
der Maße und der Oberflächenbeschaffenheit (ISO  
10545-2:2018)

This European Standard was approved by CEN on 16 October 2018.

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 CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

| Contents               | Page |
|------------------------|------|
| European foreword..... | 3    |

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN ISO 10545-2:2018  
<https://standards.iteh.ai/catalog/standards/sist/523ec767-7236-47d1-969b-2e9fe008d2c9/sist-en-iso-10545-2-2018>

## European foreword

This document (EN ISO 10545-2:2018) has been prepared by Technical Committee ISO/TC 189 "Ceramic tile" in collaboration with 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 April 2019, and conflicting national standards shall be withdrawn at the latest by April 2019.

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

This document supersedes EN ISO 10545-2:1997.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Endorsement notice

[https://standards.iteh.ai/catalog/standards/sist/523ec767-7236-47d1-969b-](https://standards.iteh.ai/catalog/standards/sist/523ec767-7236-47d1-969b-2e9fe008d2c9/sist-en-iso-10545-2-2018)

[2e9fe008d2c9/sist-en-iso-10545-2-2018](https://standards.iteh.ai/catalog/standards/sist/523ec767-7236-47d1-969b-2e9fe008d2c9/sist-en-iso-10545-2-2018)

The text of ISO 10545-2:2018 has been approved by CEN as EN ISO 10545-2:2018 without any modification.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN ISO 10545-2:2018

<https://standards.iteh.ai/catalog/standards/sist/523ec767-7236-47d1-969b-2e9fe008d2c9/sist-en-iso-10545-2-2018>

# INTERNATIONAL STANDARD

**ISO**  
**10545-2**

Second edition  
2018-09

---

---

## Ceramic tiles —

Part 2:

## Determination of dimensions and surface quality

*Carreaux et dalles céramiques —*

*Partie 2: Détermination des caractéristiques dimensionnelles et de la  
qualité de surface*  
**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN ISO 10545-2:2018

<https://standards.iteh.ai/catalog/standards/sist/523ec767-7236-47d1-969b-2e9fe008d2c9/sist-en-iso-10545-2-2018>



Reference number  
ISO 10545-2:2018(E)

© ISO 2018

## iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 10545-2:2018

<https://standards.iteh.ai/catalog/standards/sist/523ec767-7236-47d1-969b-2e9fe008d2c9/sist-en-iso-10545-2-2018>



### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland



# Contents

Page

|   |           |
|---|-----------|
| <b>Foreword</b>   | <b>iv</b> |
| <b>1 Scope</b>  | <b>1</b>  |
| <b>2 Normative references</b>                                     | <b>1</b>  |
| <b>3 Terms and definitions</b>                                    | <b>1</b>  |
| <b>4 Measurement of length and width</b>                          | <b>3</b>  |
| 4.1 Apparatus   | 3         |
| 4.2 Test specimens  | 3         |
| 4.3 Procedure   | 3         |
| 4.4 Expression of results   | 3         |
| 4.5 Test report   | 3         |
| <b>5 Measurement of thickness</b>                                 | <b>4</b>  |
| 5.1 Apparatus   | 4         |
| 5.2 Test specimens  | 4         |
| 5.3 Procedure   | 4         |
| 5.4 Expression of results   | 4         |
| 5.5 Test report   | 4         |
| <b>6 Measurement of straightness of sides</b>                     | <b>5</b>  |
| 6.1 Calculation   | 5         |
| 6.2 Apparatus   | 5         |
| 6.3 Test specimens  | 6         |
| 6.4 Procedure   | 6         |
| 6.5 Test report   | 7         |
| <b>7 Measurement of rectangularity</b>                            | <b>7</b>  |
| 7.1 Calculation   | 7         |
| 7.2 Apparatus   | 8         |
| 7.3 Test specimens  | 9         |
| 7.4 Procedure   | 9         |
| 7.5 Test report   | 9         |
| <b>8 Measurements of surface flatness (curvature and warpage)</b> | <b>9</b>  |
| 8.2 Apparatus   | 10        |
| 8.2.1 For tiles larger than 40 mm × 40 mm                         | 10        |
| 8.2.2 For tiles of dimensions 40 mm × 40 mm or less               | 10        |
| 8.3 Test specimens  | 10        |
| 8.4 Procedure   | 10        |
| 8.4.1 For tiles larger than 40 mm × 40 mm                         | 10        |
| 8.4.2 For tiles of dimensions 40 mm × 40 mm or less               | 12        |
| 8.5 Expression of results   | 12        |
| 8.6 Test report   | 12        |
| <b>9 Surface quality</b>  | <b>12</b> |
| 9.1 Surface defects and intentional effects                       | 12        |
| 9.2 Apparatus   | 12        |
| 9.3 Test specimens  | 13        |
| 9.4 Procedure   | 13        |
| 9.5 Expression of results   | 13        |
| 9.6 Test report   | 13        |

## ISO 10545-2:2018(E)

## 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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 189, *Ceramic tile*.

This second edition cancels and replaces the first edition (ISO 10545-2:1995) which has been technically revised. It also incorporates the Technical Corrigendum ISO 10545-2:1995/Cor 1:1997.

The main changes compared to the previous edition are as follows:

- for the measurement of length and width, the deviation shall be reported as a percentage and in millimetres;
- for the measurement of thickness, the deviation shall be reported as a percentage and in millimetres;
- for the measurement of straightness of sides, the deviation shall be reported as a percentage and in millimetres;
- for the measurement of the centre curvature, edge curvature and warpage, the deviation shall be reported as a percentage and in millimetres;
- tests specimens sampling has been changed;
- for rectangularity measurements of oblong tiles with longer edge  $\geq 60$  cm, and ratio between longer edge and shorter edge  $\geq 3$ , only  $\delta_L$  and percent deviation shall be determined; as a consequence, the test report is modified accordingly.

A list of all parts in the ISO 10545 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Ceramic tiles —

## Part 2:

## Determination of dimensions and surface quality

### 1 Scope

This document 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.

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

### 2 Normative references

There are no normative references in this document.

### 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

#### 3.1

##### straightness of sides

deviation from straightness of the centre of the side in the plane of the tile

Note 1 to entry: See [Figure 1](#).

#### 3.2

##### deviation from rectangularity

measurement of the departure from squareness of each corner of a tile

Note 1 to entry: It is expressed in millimetres.

Note 2 to entry: See [Figures 3 a\) and b\)](#).

#### 3.3

##### surface flatness measurement

measurements in three positions on the surface of tiles

Note 1 to entry: Tiles that have relief on the proper surface preventing measurement on that surface shall, where possible, be measured on the back.