



Ceramic tiles

Method 2: Determination of dimensions and surface quality



AS ISO 10545.2:2020

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- Association of Consultants in Access Australia
- Australian Ceramic Society
- Australian Industry Group
- Australian Institute of Waterproofing
- Australian Stone Advisory Association
- Australian Tile Council
- CSIRO
- Master Builders Australia
- Surface Coatings Association Australia
- Swimming Pool and Spa Association of Australia
- TAFE NSW
- Tiles and Tiling Industry Association Australia

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Preface

This Test Method was prepared by the Standards Australia Committee BD-044, Fixing of Ceramic, Natural and Reconstituted Stone Tiles to supersede AS 4459.2—1999, *Methods of sampling and testing ceramic tiles — Method 2: Determination of dimensions and surface quality*.

The objective of this Test Method is to specify 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 cm² 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, and rectangularity, where these are subsequently hidden in the joints after fixing (installation).

This Test Method is identical with, and has been reproduced from, ISO 10545-2:2018, *Ceramic tiles — Part 2: Determination of dimensions and surface quality*.

As this document has been reproduced from an International Standard, a full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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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.

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).

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).

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.

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 ≥ 60 cm, and ratio between longer edge and shorter edge ≥ 3 , only δ_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.

Australian Standard[®]

Ceramic tiles

Method 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 cm² 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 at 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 <http://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.

3.4

centre curvature

departure of the centre of a tile from the plane in which three of the four corners lie

Note 1 to entry: See [Figure 4](#).