



## Ceramic tiles

### Method 1: Sampling and basis for acceptance



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AS ISO 10545.1:2020

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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 ASS 4459.1:1999, *Methods of sampling and testing ceramic tiles — Method 1: Sampling and basis for acceptance*.

The objective of this Test Method is to specify rules for batching, sampling, inspection, and acceptance/rejection of ceramic tiles.

This Test Method is identical with, and has been reproduced from, ISO 10545-1:2014, *Ceramic tiles — Part 1: Sampling and basis for acceptance*.

As this document has been reproduced from an International Standard, the following applies:

- (a) In the source text “this part of ISO 10545” should read “this Australian Standard”.
- (b) A full point substitutes for a comma when referring to a decimal marker.

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## Contents

Preface .....	ii
Foreword .....	iv
<b>1 Scope .....</b>	<b>1</b>
<b>2 Terms and definitions .....</b>	<b>1</b>
<b>3 Principle .....</b>	<b>1</b>
<b>4 Constitution of inspection lots .....</b>	<b>2</b>
<b>5 Extent of the inspection .....</b>	<b>2</b>
<b>6 Sampling .....</b>	<b>2</b>
<b>7 Inspection .....</b>	<b>2</b>
<b>8 Determination of acceptability of inspection lots .....</b>	<b>2</b>
8.1 Inspection by attributes .....	2
8.2 Inspection by the average value .....	3
<b>9 Acceptance Report .....</b>	<b>3</b>
<b>Bibliography .....</b>	<b>7</b>

## 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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 189, *Ceramic Tiles*.

This second edition cancels and replaces the first edition (ISO 10545-1:1995), which has 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*

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NOTES

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## Ceramic tiles

### Method 1: Sampling and basis for acceptance

#### 1 Scope

This part of ISO 10545 specifies rules for batching, sampling, inspection, and acceptance/rejection of ceramic tiles.

#### 2 Terms and definitions

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

##### 2.1

##### **order**

quantity of tiles ordered at one time

Note 1 to entry: An order may consist of one or more consignments.

##### 2.2

##### **consignment**

quantity of tiles delivered during a period of 2 d

##### 2.3

##### **homogeneous consignment/subconsignment**

consignment or subconsignment that consists of tiles from one manufacturer, produced under conditions and with properties that are presumed uniform

##### 2.4

##### **inspection lot**

quantity of tiles submitted for inspection, manufactured by one manufacturer under conditions and with properties that are presumed uniform

##### 2.5

##### **sample**

specified number of tiles taken from an inspection lot

##### 2.6

##### **sample size**

number of tiles to be tested for each property

##### 2.7

##### **requirement**

required characteristic as specified for the property in the relevant product standard

##### 2.8

##### **non-conforming unit**

tile that does not meet the requirement for the property concerned

#### 3 Principle

This part of ISO 10545 provides for a sampling inspection system with a double sampling plan, partly for the method of inspection by attributes (individual values) and partly for a method of inspection by average values (variables).

The number of tiles to be tested varies for each property (see [Table 1](#)).