

Australian Standard™

**Ceramic tiles—Definitions,
classification, characteristics and
marking**

This Australian Standard was prepared by Committee BD-044, Fixing of Ceramic Tiles. It was approved on behalf of the Council of Standards Australia on 31 January 2003 and published on 10 March 2003.

The following are represented on Committee BD-044:

Adhesives and Sealants Manufactures Association of Australia
Association of Consulting Engineers Australia
Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Stone and Terrazzo Association
Australian Stone Industry Association
Australian Tile Council
Ceramic Tile Manufacturers Association
CSIRO, Manufacturing and Infrastructure Technology
Department of Fair Trading N.S.W
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PREFACE

This Standard was prepared by the Standards Australia Committee BD-044, Fixing of Ceramic Tiles.

This Standard is identical with and has been reproduced from ISO 13006:1998(E), Ceramic tiles—Definitions, classification, characteristics and marking.

This Standard is the result of consensus among the representatives on the Joint Committee that it be produced as an Australian Standard.

Appendix ZA details a variation to ISO 13006:1998 for Australian conditions. Explanation for the basis of the variation is as follows:

A note has been added to Clause 8.1(b), Paragraphs A3.1(b), B3.1(b), C3.1(b), D3.1(b), E3.1(b), F3.1(b), G3.1(b), H3.1(b), J3.1(b), K3.1(b), L3.1(b), and L3.3(d) to assist with local interpretation and understanding of 'First Quality'.

An additional sentence to Note 2 of Table 1 has been added to provide guidance for dry-pressed unglazed tiles with water absorption greater than 10%.

A change of the glazing classification in second example in Paragraph L3.3 was made to make the classification consistent with Table 1.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text 'this standard' should read 'this Australian Standard'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.
- (d) References to International Standards should be replaced by reference to the following Australian/New Zealand Standards:

| Reference to International Standard or other Publication | Australian or Australian/New Zealand Standard |
|--|---|
| ISO | AS |
| 10545 Ceramic tiles | 4459 Methods of sampling and testing ceramic tiles |
| 10545-1 Part 1: Sampling and basis for acceptance | 4459.1 Part 1: Sampling and basis for acceptance |
| 10545-2 Part 2: Determination of dimensions and surface quality | 4459.2 Part 2: Determination of dimensions and surface quality |
| 10545-3 Part 3: Determination of water absorption, apparent porosity, apparent relative density and bulk density | 4459.3 Part 3: Determination of water absorption, apparent porosity, apparent relative density and bulk density |
| 10545-4 Part 4: Determination of modulus of rupture and breaking strength | 4459.4 Part 4: Determination of modulus of rupture and breaking strength |

| Reference to International Standard or other Publication | Australian or Australian/New Zealand Standard |
|---|--|
| 10545-5 Part 5: Determination of impact resistance by measurement of coefficient of restitution | 4459.5 Part 5: Determination of impact resistance by measurement of coefficient of restitution |
| 10545-6 Part 6: Determination of resistance to deep abrasion for unglazed tiles | 4459.6 Part 6: Determination of resistance to deep abrasion for unglazed tiles |
| 10545-7 Part 7: Determination of resistance to surface abrasion for glazed tiles | 4459.7 Part 7: Determination of resistance to surface abrasion for glazed tiles |
| 10545-8 Part 8: Determination of linear thermal expansion | 4459.8 Part 8: Determination of linear thermal expansion |
| 10545-9 Part 9: Determination of resistance to thermal shock | 4459.9 Part 9: Determination of resistance to thermal shock |
| 10545-10 Part 10: Determination of moisture expansion | 4459.10 Part 10: Determination of moisture expansion |
| 10545-11 Part 11: Determination of crazing resistance for glazed tiles | 4459.11 Part 11: Determination of crazing resistance for glazed tiles |
| 10545-12 Part 12: Determination of frost resistance | 4459.12 Part 12: Determination of frost resistance |
| 10545-13 Part 13: Determination of chemical resistance | 4459.13 Part 13: Determination of chemical resistance |
| 10545-14 Part 14: Determination of resistance to stains | 4459.14 Part 14: Determination of resistance to stains |
| 10545-15 Part 15: Determination of lead and cadmium given off by glazed tiles | 4459.15 Part 15: Determination of lead and cadmium given off by glazed tiles |
| 10545-16 Part 16: Determination of small colour differences | AS/NZS 4586 Slip resistance classification of new pedestrian surface materials |
| 10545-17 Part 17: Determination of coefficient of friction | |

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.

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.

International Standard ISO 13006 was prepared by Technical Committee ISO/TC 189, *Ceramic tile*.

Annexes A to L form an integral part of this International Standard. Annexes M to P and the Bibliography are for information only.

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AUSTRALIAN STANDARD

Ceramic tiles — Definitions, classification, characteristics and marking

1 Scope

This International Standard defines terms and establishes classifications, characteristics and marking requirements for ceramic tiles of the best commercial quality (first quality).

NOTE ISO 10545 describes the test procedures required to determine the product characteristics listed in ISO 13006. ISO 10545 is divided into parts each describing a specific test procedure or related matter.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard 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.

ISO 1006:1983, *Building construction — Modular coordination — Basic module.*

ISO 10545-1:1995, *Ceramic tiles — Part 1: Sampling and basis for acceptance.*

ISO 10545-2:1995, *Ceramic tiles — Part 2: Determination of dimensions and surface quality.*

ISO 10545-3:1995, *Ceramic tiles — Part 3: Determination of water absorption, apparent porosity, apparent relative density and bulk density.*

ISO 10545-4:1994, *Ceramic tiles — Part 4: Determination of modulus of rupture and breaking strength.*

ISO 10545-5:1996, *Ceramic tiles — Part 5: Determination of impact resistance by measurement of coefficient of restitution.*

ISO 10545-6:1995, *Ceramic tiles — Part 6: Determination of resistance to deep abrasion for unglazed tiles.*

ISO 10545-7:1996, *Ceramic tiles — Part 7: Determination of resistance to surface abrasion for glazed tiles.*

ISO 10545-8:1994, *Ceramic tiles — Part 8: Determination of linear thermal expansion.*

ISO 10545-9:1994, *Ceramic tiles — Part 9: Determination of resistance to thermal shock.*

ISO 10545-10:1995, *Ceramic tiles — Part 10: Determination of moisture expansion.*

ISO 10545-11:1994, *Ceramic tiles — Part 11: Determination of crazing resistance for glazed tiles.*

ISO 10545-12:1995, *Ceramic tiles — Part 12: Determination of frost resistance.*

ISO 10545-13:1995, *Ceramic tiles — Part 13: Determination of chemical resistance.*

ISO 10545-14:1995, *Ceramic tiles — Part 14: Determination of resistance to stains.*