

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 4459.13—1999

**Methods of sampling and testing ceramic tiles
Method 13: Determination of chemical resistance**

RECONFIRMATION NOTICE

Technical Committee BD-044 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 21 January 2016.

The following are represented on Technical Committee BD-044:

Australian Industry Group
Australian Stone Advisory Association
Australian Tile Council
Ceramic Tile Manufacturers Association of Australia
Institute of Building Consultants
Master Builders Australia
Master Glazed Wall & Floor Tile Layers Association of SA
Plastics and Chemicals Industries Association
Property Council of Australia
Surface Coatings Association Australia

NOTES

Australian Standard™

Methods of sampling and testing ceramic tiles

Method 13: Determination of chemical resistance

[ISO title: Ceramic tiles, Part 13: Determination of chemical resistance]

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee BD/44, Fixing of Ceramic Tiles.

This Standard is technically equivalent to and reproduced from ISO 10545-12:1995, *Ceramic tiles, Part 13: Determination of chemical resistance*.

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

Appendix ZA details variations to ISO 10545-6:1995 for Australian conditions. Explanations for the basis of these variations are as follows:

- (a) Clause 7.1 has been modified by the addition of two notes that—
 - (i) better reflect the accuracy that can be attained; and
 - (ii) more precisely define the test procedure.
- (b) Clause 8.2.3.3 has been modified to correct a typographical error. A sentence was also added to Footnote 1 in order to assist in the interpretation of the Clause.
- (c) Figure 1 has been modified to more accurately illustrate the described classification procedure.

The changes to ISO 10545.12:1995 are indicated by a marginal bar set adjacent to the clause, table, figure, or part thereof.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

For the purpose of this Australian Standard, the ISO/IEC text should be modified as follows:

- (i) *Terminology* The words 'Australian Standard' should replace the words 'International Standard' wherever they appear.
- (ii) *Decimal marker* A full point should be substituted for a comma where it appears as a decimal marker.

METHOD

1 Scope

This part of ISO 10545 specifies a test method for determining the chemical resistance of ceramic tiles at room temperature. The method is applicable to all types of ceramic tiles.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 10545. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 10545 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3585:1991, *Borosilicate glass 3.3 — Properties*.

3 Principle

Subjection of the test specimens to the action of the test solutions and visual determination of attack after a defined period.

4 Aqueous test solutions

4.1 Household chemicals

Ammonium chloride solution, 100 g/l.

4.2 Swimming pool salts

Sodium hypochlorite solution, 20 mg/l, prepared from technical grade sodium hypochlorite with about 13 % (*m/m*) of active chloride.

4.3 Acids and alkalis

4.3.1 Low concentrations (L)

- a) Hydrochloric acid solution, 3 % (*V/V*), prepared from concentrated hydrochloric acid ($\rho = 1,19$ g/ml).
- b) Citric acid solution, 100 g/l.
- c) Potassium hydroxide solution, 30 g/l.

4.3.2 High concentrations (H)

- a) Hydrochloric acid solution, 18 % (*V/V*), prepared from concentrated hydrochloric acid ($\rho = 1,19$ g/ml).
- b) Lactic acid solution, 5 % (*V/V*).
- c) Potassium hydroxide solution, 100 g/l.

5 Apparatus

5.1 Vessel with a lid, made of borosilicate glass 3.3 (ISO 3585), or any other suitable material.

5.2 Cylinder of borosilicate glass 3.3 (ISO 3585), or any other suitable material having a lid or an opening for filling.