

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 4459.7—1999

Methods of sampling and testing ceramic tiles

Method 7: Determination of resistance to surface abrasion for glazed tiles

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 7: Determination of resistance to surface abrasion for glazed tiles

[ISO title: Ceramic tiles, Part 7: Determination of resistance to surface abrasion for glazed tiles]

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

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 variations to ISO 10545-7:1996 to suit local conditions. Explanation for the basis of these variations are as follows:

- (a) A note has been added to Clause 1 to reflect the fact that this test method is often used to test unglazed tiles.
- (b) A note has been added to Clause 4 to indicate that the variability that sometimes occurs in the sizing of the abrasive can be tolerated.
- (c) Clause 5.2 has been modified to minimize any variability that may arise from non-uniformity of the viewing box.
- (d) Clause 7 has been modified to adopt accepted viewing practices, to correct a typographical error, to adopt an alternate method of checking the abrasive load, and to permit reporting of pertinent information.
- (e) Appendix ZB provides an alternate abrasive load checking method due to deficiencies and difficulties with the specified method.

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:

- (a) *Terminology* The words 'Australian Standard' should replace the words 'International Standard' wherever they appear.
- (b) *Decimal marker* A full point should be substituted for a comma where it appears as a decimal marker.
- (c) *References* The references to International Standards should be replaced by references to the following Australian/New Zealand Standards or Australian Standards:

*Reference to International Standard
or other Publication*

ISO

8486	Bonded abrasives—Grain size analysis—Designation and determination of grain size distribution
8486-1	Part 1: Macrogrits F4 to F220
10545	Ceramic tiles
10545-14	Part 14: Determination of resistance to stains

Australian/New Zealand Standard

AS/NZS

4518	Bonded abrasives—Determination and designation of grain size distribution
4518.1	Part 1: Macrogrits F4 to F220
AS	
4459	Methods of sampling and testing ceramic tiles
4459.14	Part 14: Determination of resistance to stains

METHOD

1 Scope

This part of ISO 10545 specifies a method for determining the resistance to surface abrasion of all glazed ceramic tiles used for floor covering.

2 Normative reference

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 10545. At the time of publication, the editions indicated were 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 editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 8486-1:—¹⁾, *Bonded abrasives — Grain size analysis — Designation and determination of grain size distribution — Part 1: Macrogrits F 4 to F 220*.

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

3 Principle

Determination of the abrasion resistance of the glaze of tiles by rotation of an abrasive load on the surface and assessment of the wear by means of visual comparison of abraded test specimens and non-abraded tiles.

4 Abrasive load

The total load on each test specimen shall consist of

70,0 g	of steel balls of diameter 5 mm;
52,5 g	of steel balls of diameter 3 mm;
43,75 g	of steel balls of diameter 2 mm;
8,75 g	of steel balls of diameter 1 mm;
3,0 g	of white fused aluminium oxide of grain size F 80 according to ISO 8486;
20 ml	of deionized or distilled water.

1) To be published (Revision of ISO 8486:1986)