STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 4459.15—1999

Methods of sampling and testing ceramic tiles

Method 15: Determination of lead and cadmium given off by 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

AS 4459.15—1999
ISO 10545-15:1995
Reconfirmed 2017

Australian Standard™

Methods of sampling and testing ceramic tiles

Method 15: Determination of lead and cadmium given off by glazed tiles

[ISO title: Ceramic tiles, Part 15: Determination of lead and cadmium given off by 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 identical with and is reproduced from ISO 10545-15:1995, *Ceramic tiles*, Part 15: *Determination of lead and cadmium given off by glazed tiles*.

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

METHOD

1 Scope

This part of ISO 10545 specifies a method for the determination of lead and cadmium given off by the glaze of ceramic tiles.

2 Normative references

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 3696:1987 *Water for analytical laboratory use — Specification and test methods.*

ISO 6353-2:1983, *Reagents for chemical analysis — Part 2: Specifications — First series.*

3 Principle

Exposition of the glazed surface of a ceramic tile to an acetic acid solution. Determination of the amount of lead and cadmium released into the solution by an appropriate method.

4 Reagents

During the analysis, unless otherwise indicated, use only the reagents specified in ISO 6353-2 if indicated, if not, use reagents of recognized analytical grade, and grade 2 complying with ISO 3696:1987.

4.1 Test solution: acetic acid solution, 4 % (*V*/*V*). Add 40 ml of glacial acetic acid (R 1 of ISO 6353-2:1983) to 960 ml of distilled water of grade 2.

5 Apparatus and materials

5.1 Atomic absorption spectrometer, or other suitable apparatus for the analysis of lead and cadmium from solution.

5.2 Silicone sealant in a tube or **dispenser**, enabling a ribbon of clear silicone (neutral cure) sealant approximately 6 mm in diameter to be formed.

5.3 Impervious cover, made of glass or plastics.

5.4 Detergent.

5.5 White cloth, made of cotton or flax.

5.6 Measuring cylinder.

6 Test specimens

6.1 Number of test specimens

A minimum of three whole tiles shall be tested.

6.2 Preparation of test specimens

The surface of a tile to be tested shall be clean and free from grease or other material that may interfere with the performance of the test. To ensure cleanliness, the tile shall be thoroughly washed in tap water containing a small amount of detergent (5.4), and rinsed

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