

Australian Standard™

Methods of test for vitreous enamel coatings

Method 3.2: Miscellaneous tests—Production of specimens for testing

PREFACE

This Standard was prepared by the Standards Australia Committee CH-007, Vitreous Enamel Finishes.

This Standard is identical with and has been reproduced from ISO 13804:1999, *Vitreous and porcelain enamels for aluminium—Production of specimens for testing*.

This Standard is Part 3.2 of a series of Standards covering the miscellaneous testings of vitreous enamel coatings.

The series comprises the following Parts:

AS

2219	Methods of test vitreous enamel coatings
2219.3.1	Method 3.1: Miscellaneous tests—Method of test of self-cleaning properties
2219.3.2	Method 3.2: Miscellaneous tests—Production of specimens for testing
2219.3.3	Method 3.3: Miscellaneous tests—Determination of adhesion of enamels on aluminium under the action of electrolytic solution (spall test)

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 pages.
- (b) In the source text, 'this International Standard' should read 'this Australian Standard.'
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to equivalent Australian Standards as follows:

<i>Reference International Standard</i>		<i>Australian Standard</i>	
ISO		AS	
13805	Vitreous and porcelain enamels for aluminium—Determination of the adhesion of enamels on aluminium under the action of electrolytic solution (spall test)	2219	Methods of test for vitreous enamel coatings
		2219.3.3	Method 3.3: Miscellaneous tests—Determination of the adhesion of enamels on aluminium under the action of electrolytic solution (spall test)



NOTES

1 Scope

This International Standard specifies a method for the production of specimens suitable for testing vitreous and porcelain enamel coatings on aluminium, as well as the enamelling process for aluminium materials.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 13805, *Vitreous and porcelain enamels for aluminum — Determination of the adhesion of enamels on aluminium under the action of electrolytic solution (spall test)*.

3 Specimen shape and size

The specimens shall be flat, enamelled, circular or square plates of high-grade aluminium or of an enamelling-quality aluminium alloy, with a diameter or side length of $105 \text{ mm} \pm 2 \text{ mm}$. If only the adherence of enamels for aluminium under the influence of electrolytic solutions, as specified in ISO 13805, is to be determined, then the specimens used may be of any given shape.

When the loss in mass per unit area of the enamel coating is to be determined quantitatively, specially prepared specimens (see clause 4) shall be used, as specimens cut from enamelled articles (see clause 5) may reduce the accuracy of the test method.

4 Production of specially prepared specimens

4.1 Requirements

Sheet, 2 mm to 3 mm thick, made of high-grade aluminium or of an enamelling-quality aluminium alloy, shall be used as the base metal.

Specimens of aluminium castings shall have a thickness from 3 mm to 5 mm.

The specimens may be provided with a hole 2,5 mm in diameter, the centre of which shall be positioned 3 mm from the edge of each specimen. In the case of square specimens, the hole should be located in a corner.