

AS 1889.2—1985

Australian Standard[®]

PVC FLOOR TILES

Part 2—FLEXIBLE

(Title allocated by Defence Cataloguing Authority:
TILE, VINYL RESIN (Flexible))
(NATO Supply Classification: 7220)

This Australian standard was prepared by Committee PL/15, PVC Flooring. It was approved on behalf of the Council of the Standards Association of Australia on 27 August 1984 and published on 31 January 1985.

The following interests are represented on Committee PL/15:

Adhesives and Sealants Manufacturer's Association
Australian Particleboard Manufacturer's Association
Building Owners and Managers Association of Australia Limited
Confederation of Australian Industry
CSIRO, Division of Building Research
Department of Public Works, N.S.W.
Department of Transport and Construction
Plastics Institute of Australia Incorporated
Plywood Association of Australia Ltd
Public Works Department, Vic.
Railways of Australia Committee
Royal Australian Institute of Architects, Victorian Chapter

Review of Australian Standards. To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

All details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

Australian Standard[®]

PVC FLOOR TILES

Part 2—FLEXIBLE

First published (as AS A180)	1968
AS 2055 first published	1977
AS 1889.2 first published	1985

PREFACE

This standard was prepared by the Association's Committee on PVC Flooring, under the direction of the Plastics Standards Board. It supersedes in part AS 2055—1977, Flexible PVC Floor-covering.

This standard applies to PVC floor tiles made up of layers of PVC compounds of substantially the same composition and self-bonded together. It includes embossed materials but excludes tiles consisting of layers of plastics and fibrous materials, backed or sandwiched, or flooring, consisting of a base material laminated with a wear layer which may be plain, patterned, embossed or printed.

The requirements for flexible PVC tiles sheet floor-covering were previously published together in AS 2055—1977. The opportunity has been taken to separate these and AS 2055 now only specifies requirements for PVC sheet floor-covering while AS 1889 covers PVC floor tiles of various constructions.

© Copyright — STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

CONTENTS

	<i>Page</i>
SPECIFICATION	
1 Scope	4
2 Referenced Documents	4
3 Definitions	4
4 Material	4
5 Colour and Finish	4
6 Colourfastness to Daylight	4
7 Dimensions	4
8 Dimensional Stability	4
9 Volatile Material	5
10 Flexibility	5
11 Indentation	5
12 Resistance to Various Substances	5
13 Ply Adhesion	5
14 Conditioning of Test Specimens	5
15 Marking	5
APPENDICES	
A Summary of Test Limits	6
B Determination of Compliance of a lot	7
C Method for Determination of Dimensions	8
D Method for Determination of Dimensional Stability	9
E Method for Determination of Volatile Stability	10
F Method for Determination of Flexibility and Resistance to Ageing	12
G Method for Determination of Resistance to Indentation	13
H Method for Determination of Resistance to Various Substances	15
J Method for Determination of Ply Adhesion	18

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for

PVC FLOOR TILES**PART 2—FLEXIBLE**

1 SCOPE. This standard specifies requirements for flexible PVC floor-covering in the form of tiles having a smooth or embossed wearing surface.

It does not apply to tiles consisting of layers of plastics and fibrous materials, backed or sandwiched, or tiles consisting of a base material laminated with a wear layer which may be plain, patterned, embossed or printed.

NOTES:

1. Tiles having an embossed surface or other design effects penetrating any part of their thickness, may be supplied as agreed between the purchaser and supplier. The permanence of such surfaces will be dependent on the traffic density and this should be a consideration in the choice of these materials.
2. Appendix A sets out a summary of the limits applying to flexible PVC tiles tested for compliance with this standard.
3. Advisory information on the determination of compliance of a 'lot' with this standard is given in Appendix B.

2 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1199	Sampling Procedures and Tables for Inspection by Attributes
AS 1399	Guide to AS 1199, Sampling Procedures and Tables for Inspection by Attributes
AS 1821-23	Suppliers Quality Control Systems—Levels 1, 2 and 3
AS 1886	Glossary of Terms Relating to Plastics
AS 2000	Guide to AS 1821—1823, Suppliers Quality Control Systems
AS 2001.4.1	Methods of Test for Textiles, Part 4—Colourfastness Tests—Definitions and General Requirements
AS 2001.4.2	Methods of Test for Textiles, Part 4—Colourfastness Tests—Determination of Colourfastness to Daylight
AS 2103	Dial Gauges and Dial Test Indicators
AS 2193	Methods for Calibration and Grading of Force-measuring Systems of Testing Machines
AS 2400	Sampling Procedure and Charts for Inspection by Variables for Percent Defective.

3 DEFINITIONS. For the purpose of this standard, the following definitions apply:

NOTE: The definitions listed below are taken from AS 1886.

3.1 Polymer. A substance consisting of molecules characterized by the repetition (neglecting ends, branch junctions and other minor irregularities) of one or more types of monomeric units.

3.2 Copolymer.

- (a) A polymer consisting of molecules containing large numbers of units of two or more chemically different types in irregular sequence.

NOTE: If this sequence is unknown, it is assumed to be irregular.

- (b) The product of simultaneous polymerization of two different monomers or of the grafting on of one monomer to the polymer of another monomer.

4 MATERIAL. The tile shall consist of a binder, principally vinyl chloride polymer and/or copolymer, compounded with suitable plasticizers and stabilizers. It may be blended with pigments and fillers, evenly distributed throughout to form a plain homogeneous coloured compound, or it may be blended or laminated with other suitable compounds to form regular or variegated patterns, or it may be composed of chips of pigmented materials in a matrix of non-pigmented or lightly pigmented materials.

5 COLOUR AND FINISH. The colouring in the tile may be plain, variegated or patterned. Such colouring and appearance shall be uniform throughout the consignment.

NOTE: In normal manufacture, tiles from different batches may vary somewhat in hue and shade and pattern.

6 COLOURFASTNESS TO DAYLIGHT. When determined in accordance with AS 2001.4.2, the colourfastness of the tile shall be rated not less than Standard 5.

7 DIMENSIONS.

7.1 Thickness. The standard nominal thickness of tiles shall be 1.5 mm, 2.0 mm or 2.5 mm.

NOTE: Non-standard thicknesses may be supplied by special arrangement.

When measured in accordance with Appendix C, the thickness of tiles shall not vary by more than ± 0.13 mm from the nominal thickness.

7.2 Size. When measured in accordance with Appendix C, the standard size of tiles shall be 300 ± 0.25 mm square.

NOTE: Other sizes may be available as agreed between purchaser and supplier.

7.3 Squareness. When measured in accordance with Appendix C, there shall be no gap greater than 0.15 mm between the sides of a tile and the arms of the metal jig.

8 DIMENSIONAL STABILITY. When determined in accordance with Appendix D, any change in linear dimensions shall not exceed 0.25 percent.