

Australian Standard[®]

Fixing of roofing tiles

This Australian Standard was prepared jointly by Committees BD/8, Terra Cotta Roofing Tiles and BD/17, Concrete Roofing Tiles. It was approved on behalf of the Council of Standards Australia on 22 September 1989 and published on 11 December 1989.

The following interests are represented on Committees BD/8 and BD/17:

Australian Concrete Roofing Tile Manufacturers Association
Australian Institute of Building Surveyors
Australian Uniform Building Regulations Co-ordinating Council
Confederation of Australian Industry
CSIRO, Division of Building, Construction and Engineering
Department of Local Government, Qld
Housing Industry Association, Australia
Master Builders Construction and Housing Association, Australia
Monash University
Municipal Association of Victoria
Public Works Department, N.S.W.
Royal Australian Institute of Architects
Slaters, Tilers and Roofing Industry Union of Victoria
State Savings Bank of Victoria
Terra Cotta Roofing Tile Association

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This Standard was issued in draft form for comment as DR 88165.

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For history of AS 2050 before 1989, see Preface
Second edition 1989.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 5949 7

PREFACE

This Standard was jointly prepared by the Standards Australia Committees on Concrete Roofing Tiles and Terra Cotta Roofing Tiles, as a revision and amalgamation of AS 1758—1975, *Code of practice for the fixing of concrete interlocking roofing tiles (without weathering check)*, AS 1760—1975, *Code of practice for the fixing of concrete interlocking roofing tiles (with weathering check)*, and AS 2050—1977, *Code of practice for the fixing of terra cotta roofing tiles*. It has been prepared as part of Standards Australia's program for systematical revision of Building Standards.

AS 1758 was first issued as an SAA Interim Standard, SAA Int. 311, in 1951. AS 1760 was first issued as AS CA6 in 1949. SAA Int. 311 was revised and issued as AS CA46 in 1967. Both documents were subsequently revised and issued as AS 1758 and AS 1760 in 1975. AS 2050 was first issued as AS CA5 in 1933 and revised in 1963. AS CA5 was revised again and reissued as AS 2050 in 1977.

This edition includes fixing tolerances for battens, minimum fixing requirements for tiles and accessories, and a general requirement for compliance with the National Building Technology Centre (NBTC) Dynamic weather resistance test.

Where mandatory notes to tables are used in this Standard, they are deemed to form an integral part of the Standard.

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STANDARDS AUSTRALIA

Australian Standard
Fixing of roofing tiles

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This Standard sets out requirements for the placement and fixing of concrete and terra cotta roofing tiles of the types specified in AS 1757 and AS 2049. The fixing methods described in this Standard apply only to roofs of buildings which are intended for domestic, commercial or light industrial purposes.

This Standard applies only to roofs with a pitch of 15° or greater.

NOTES:

1. This Standard does not restrict the use of other fixing and fastening methods or materials where it can be shown that they are not inferior in performance to the performance achieved by the materials and methods described herein.
2. Where it is intended to fix tiles to roofs with a pitch of less than 15°, the tile manufacturer's advice should be sought.
3. The type of roof construction described in this Standard may not be adequate to resist wind forces in cases where the height of the eaves is more than 15 m above the mean surrounding ground level. In such cases, or in areas where cyclones or high winds are known to occur, the fixing and fastening methods and sarking recommendations given in Appendix A are recommended.
4. Appendix B provides information on the data normally provided by the specifier and the tile manufacturer, and on the work normally carried out as part of the tiling operation.

1.2 REFERENCED DOCUMENTS. The documents below are referred to in this Standard:

AS

1170	SAA Loading Code
1170.1	Part 1: Dead and Live loads
1170.2	Part 2: Wind forces
1316	Masonry cement (metric units)
1538	SAA Cold-framed Steel Structures Code
1554	SAA Structure Steel Welding Code
1554.1	Part 1: Welding of steel structures
1672	Building limes
1684	SAA Timber Framing Code
1720	SAA Timber Structure Code
1720.1	Part 1: Design Methods
1736	Code of practice for pliable roof sarking
1748	Mechanically stress-graded timber
1757	Concrete roofing tiles
1903	Reflective foil laminate
1904	Code of practice for installation of reflective foil laminate in buildings
2049	Terra cotta roofing tiles
2334	Steel nails—Metric series
2758	Aggregates and rock for engineering purposes
2758.1	Part 1: Concrete aggregates

3566	Screws—Selfdrilling—For the building and construction industries
A123	Mortar for masonry construction
SAA	
MP20	Admixtures for concrete
BS	
1014	Specification for pigments for portland cement and portland cement products

1.3 DEFINITIONS. For the purpose of this Standard, the definitions below apply.

NOTE: Care should be taken to ensure that the definitions and terms used in this Standard are properly understood and that terminology appropriate to the trade in the particular locality is used. Reference to local trade organizations may be helpful.

1.3.1 Roof tile—a concrete or terra cotta product used to form the field of the roof.

1.3.2 Accessory—a concrete or terra cotta product used to finish the roof and includes apex, ridge and barge tiles.

1.3.3 High wind areas—areas in which the basic design wind velocity, modified for terrain and height in accordance with AS 1170.2 s not less than 33 m/s.

1.3.4 Fixing materials—components used to fix and weatherproof a roof, eg. nails, screws, clips, mortar.

1.3.5 Edge of roof—the area of a roof bounded by the eaves, ridge and barge, extending towards the centre of the roof for a distance equal to 0.1 multiplied by the minimum plan dimension of the building, measured from eaves to eaves, or barge to barge.

1.3.6 Required—required by a Regulatory Authority.

1.3.7 Weatherproof—when the performance of a roofing system or component is equal to or better than that of the datum specimen if subjected to the Dynamic weather resistance test, which is detailed in Appendix C.

1.4 PERFORMANCE REQUIREMENTS FOR THE COMPLETED ROOF.

1.4.1 Loading. The fixing, as specified by the tiling manufacturer, of sarking, battens, tiles and accessories shall be sufficient for the completed roof to withstand the loading requirements of AS 1170.1 and AS 1170.2.

1.4.2 Weather resistance. When tested in accordance with the test set out in Appendix C, the completed roof shall be sufficiently free from defect or distortion to be weatherproof.