



Design and installation of sheet roof and wall cladding

Part 1: Metal



This Australian Standard® was prepared by Committee BD-014, Metal Cladding. It was approved on behalf of the Council of Standards Australia on 7 February 2018. This Standard was published on 1 March 2018.

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- Australian Aluminium Council
 - Australian Building Codes Board
 - Australian Garage Door Association
 - Australian Steel Association
 - Australian Steel Institute
 - Bureau of Steel Manufacturers of Australia
 - Consult Australia
 - Curtin University of Technology
 - Cyclone Testing Station, James Cook University
 - Housing Industry Association
 - Insulated Panels Council Australasia
 - Insurance Council of Australia
 - Metal Roofing & Cladding Association
 - Queensland University of Technology
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This Standard was issued in draft form for comment as DR AS 1562.1:2017.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard®

Design and installation of sheet roof and wall cladding

Part 1: Metal

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PREFACE

This Standard was prepared by the Standards Australia Committee BD-014, Metal Cladding, to supersede AS 1562.1—1992.

This Standard is part of a series on sheet roof and wall cladding which comprises the following:

AS

- 1562 Design and installation of sheet roof and wall cladding
- 1562.1 Part 1: Metal (this Standard)
- 1562.3 Part 3: Plastic

AS/NZS

- 1562 Design and installation of sheet roof and wall cladding
- 1562.2 Part 2: Corrugated fibre-reinforced cement

The objective of this Standard is to provide designers and installers with clear information to determine the minimum requirements for the correct and safe design and installation of sheet metal roof and wall cladding, based on the best available evidence and current industry practice.

The main technical changes to the Standard are the following:

- (a) Revision of the design section to align with current versions of AS/NZS 1170 series.
- (b) Revision of the installation section to provide flashing requirements to minimize the risk of water ingress, and to highlight the importance of fixing ancillary equipment to the roof structure rather than just the roof cladding.
- (c) Revision of the testing section to align it with current practice whereby roof cladding for cyclonic areas must withstand a Low-Hi-Low test regime.
- (d) Alignment with HB 39 and relevant Australian Standards including AS/NZS 1170 series and AS 4040 series.
- (e) Clarification of the design aspects such as rainwater capacity, adjacent metal suitability, and minimum fixing requirements for flashings have been clarified.
- (f) Incorporation of factors for variation of repeat load testing have to align with current practice.
- (g) Requirements to fix flashing of wall and roof joints and ridge capping with screw connectors at a minimum spacing of either 300 mm for some flashing edges and 600 mm for others.
- (h) Improved presentation of design documentation and test report for the performance verification of cladding systems.

In this Standard, notes are for information and guidance only. Statements expressed in mandatory terms in notes to tables or figures are deemed to be requirements of this Standard.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard**Design and installation of sheet roof and wall cladding****Part 1: Metal**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out requirements for the design and installation of self-supporting metal roof and wall cladding subjected to out-of-plane external actions and in-plane thermally induced actions, permanent actions on walls and steep roofs and frictional drag of wind and snow actions.

NOTES:

- 1 The term ‘metal roof’ is considered to include metal tiles.
- 2 Stressed-skin design (diaphragm action) is not covered in this Standard. Design and installation of cladding for stressed-skin buildings should be undertaken using relevant manuals such as EN 1993-1-3. Information on evaluating bracing capacity of cladding is given in Appendix E.
- 3 Some of the design and testing provisions in this Standard may apply to metal faced structural insulated panels although some of the material specifications for these products are not covered in this Standard.

1.2 NORMATIVE REFERENCES

The following are the normative documents referred to in this Standard:

NOTE: Documents referenced for informative purposes are listed in the Bibliography.

AS

1397	Continuous hot-dip metallic coated steel sheet and strip—Coatings of zinc and zinc alloyed with aluminium and magnesium
1566	Copper and copper alloys—Rolled flat products
1789	Electroplated zinc (electrogalvanized) coatings on ferrous articles (batch process)
2179	Specifications for rainwater goods, accessories and fasteners
2179.1	Part 1: Metal shape or sheet rainwater goods, and metal accessories and fasteners
2334	Steel nails—Metric series

AS

3566	Self-drilling screws for the building and construction industries
3566.1	Part 1: General requirements and mechanical properties
4040	Methods of testing sheet roof and wall cladding
4040.1	Part 1: Resistance to concentrated loads
4040.2	Part 2: Resistance to wind pressures for non-cyclone regions
4040.3	Part 3: Resistance to wind pressures for cyclone regions
4055	Wind loads for housing