AS 3566.2:2025

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Self-drilling screws for the building and construction industries

Part 2: Requirements for corrosion resistance of self-drilling screws and specifications for associated sealing washers for roofing and cladding

AS 3566.2:2025

This Australian Standard ® was prepared by ME-029, Fasteners. It was approved on behalf of Standards Australia's Standards Development and Accreditation Committee on 14 April 2025.

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The following are represented on Committee ME-029:

Association of Accredited Certification Bodies
Association of Wall and Ceiling Industries of Australia
Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Engineered Fasteners and Anchors Council
Australian Industry Group
Australian Steel Institute
Bureau of Steel Manufacturers of Australia
Engineers Australia
Galvanizers Association of Australia
Materials Australia
National Association of Steel-Framed Housing
National Association of Testing Authorities Australia
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Revised and redesignated in part as AS 3566.2—2002.
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How to read this Standard

This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

Requirements

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

Recommendations, permissions and possibilities

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee ME-029, Fasteners, to supersede AS 3566.2:2002, *Self-drilling screws for the building and construction industries, Part 2: Corrosion resistance requirements*.

The objective of this document is to provide manufacturers and users with the requirements for the corrosion resistance of self-drilling screws and non-conductive seals.

This document is Part 2 of a two-part series that specifies the requirements for self-drilling screws for the building and construction industries. Part 1 specifies general requirements and the mechanical properties for self-drilling screws.

The corrosion requirements in this document are based on the corrosion rates of zinc for the different corrosivity categories as published in ISO 9223. As these corrosion rates for different corrosion categories are expressed as a range in ISO 9223, AS 3566.2 has set its corrosion performance requirement based on the maximum corrosion rate for each corrosion category in ISO 9223, so that a fastener conforming to AS 3566.2 provides a minimum of 10 years durability in a given corrosion category.

This edition excludes accelerated testing. It introduces a "Class" rating system for packaging and labelling. It also includes stainless steel fasteners. Additional product attributes for laboratory testing have been added.

NOTE This edition has not updated the outdoor exposure test method (OETM).

The terms "normative" and "informative" have been used in this document 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.

Contents

Australian Standard®

Self-drilling screws for the building and construction industries

Part 2: Requirements for corrosion resistance of self-drilling screws and specifications for associated sealing washers for roofing and cladding

Section 1 Scope and general

1.1 Scope

This document specifies the requirements for corrosion resistance and selection for the appropriate environment of hex-head or other external drive self-drilling screws used in the roofing and cladding industry. This document also includes requirements for associated sealing washers.

This document does not specify the compatibility of dissimilar metals. For further guidance on the prevention of galvanic corrosion of dissimilar metals refer to AS/NZS 2312.2.

NOTE Further guidance on the compatibility of screws and common cladding materials used in Australia is given AS 1562.1:2018, Table C.3.

Care should be taken that there is compatibility between the fastener and steel roofing and cladding. This document does not apply when self-drilling screws are in contact with CCA treated timbers. Some other timber treatments can also increase corrosion in fastener coatings and care ought to be taken to ensure that there is compatibility between any timber used and the fastener.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

AS 1397, *Continuous hot-dip metallic coated steel sheet and strip — Coatings of zinc and zinc alloyed with aluminium and magnesium*

AS 1897, *Fasteners — Electroplated coatings*

AS 2331.1.1, *Methods of test for metallic and related coatings, Method 1.1: Local thickness tests — Micrographic examination of cross-sections*

AS 2331.1.3, *Methods of test for metallic and related coatings, Method 1.3: Local thickness tests — Magnetic method*

AS 2331.1.4, *Methods of test for metallic and related coatings, Method 1.4: Local thickness tests — Magnetic induction and eddy current methods*

AS/NZS 1214, *Hot-dip galvanized coatings on threaded fasteners (ISO metric coarse thread series) (ISO 10684:2004, MOD)*

AS/NZS 1734, *Aluminium and aluminium alloys — Flat sheet, coiled sheet and plate*

AS/NZS 1748.1, *Timber — Solid — Stress-graded for structural purposes, Part 1: General requirements*

AS/NZS 1789, *Metallic and other inorganic coatings — Electroplated coatings of zinc with supplementary treatments on iron or steel (ISO 2081:2018, MOD)*

AS/NZS 2728, *Prefinished/prepainted sheet metal products for interior/exterior building applications — Performance requirements*

ISO 3613, *Metallic and other inorganic coatings — Chromate conversion coatings on zinc, cadmium, aluminium-zinc alloys and zinc-aluminium alloys — Test methods*