

Fasteners for roofing, walling and accessory products – selection guide

Introduction

Fasteners used to fix roofing, walling and accessory products manufactured from coated steel sheet and strip are required to give long, trouble-free service. They must do so in environments which range from mild to very severe in terms of corrosive effect.

The purpose of this Technical Bulletin is to provide recommendations for compatible fasteners, most commonly self-drilling screws, for use with roofing, walling and accessory products made from BlueScope coated steel.

Choice of fastener for long life

The correct selection of fasteners for fixing roof and wall cladding and accessories is of paramount importance for long term fastening integrity and aesthetics.

When fasteners are selected to fix coated steel building products, it is vital that the fasteners have the same or superior service life as the material with which they are to be used.

Table 1 below provides a general guide to the fastener type recommended for BlueScope products. In areas of uncertainty, it is advisable to use fasteners with the higher corrosion resistance rating.

In the interest of quality assurance, it is essential to select fasteners that comply with the requirements of Australian Standard AS 3566.2-2025 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.

It is advisable to ask for a certificate of compliance from your fastener supplier, or similar statement, regarding washer conductivity.

Fasteners used to fix roofing and walling manufactured from BlueScope Steel products must, as a minimum, comply with AS 3566.2-2025 Class 3, however it is advisable to use fasteners with a higher corrosion resistance rating wherever possible.

BlueScope does not manufacture fasteners and does not control the quality of any given fastener type. Consumers should obtain written confirmation from suppliers that their fasteners comply with the requirements of AS3566.2 and that they are suitable for the intended application and service environment.

To assist in cladding selection please refer to the list of related BlueScope Technical Bulletins at the end of this document.

Fastener types and compatibility

Materials that are incompatible and must not be used with COLORBOND® steel and ZINCALUME® steel include stainless steel, copper and copper containing alloys.

Similarly, copper and copper-containing alloys are incompatible with SUPERDURA® Stainless steel and are not to be used. Only stainless steel fasteners are to be used with SUPERDURA® Stainless steel.

For more information, please refer to: [Corrosion Technical Bulletin CTB-12 Dissimilar metals](#).

There are two fastener designs to be considered for use with BlueScope products:

1. Self-drilling screws

- Used for fastening cladding to a building structure.
- Use only compatible metallic coated steel screws with COLORBOND® steel, COLORBOND® Ultra steel, COLORBOND® Coolmax® steel, ZINCALUME® steel and zinc-coated steel (as per Table 1).
- Use only stainless steel screws with SUPERDURA® Stainless steel (as per Table 1).
- Use only self-drilling screws that meet the requirements of AS3566.2-2025

2. Accessory fasteners

- Used for fastening accessory items such as flashings, fascia and rainwater goods.
- Use only compatible metallic coated steel self-drilling stitching screws with COLORBOND® steel, COLORBOND® Ultra steel, COLORBOND® Coolmax® steel, ZINCALUME® steel and zinc-coated steel (as per Table 1).
- Use only compatible sealed aluminium rivets with COLORBOND® steel, COLORBOND® Ultra steel, COLORBOND® Coolmax® steel, ZINCALUME® steel and zinc-coated steel.
- Use only sealed stainless steel rivets or stitching screws with SUPERDURA® Stainless steel.

The coated steel strip supplied by BlueScope for manufacturing into roofing, walling and accessory products is made to the highest standard and conforms to all relevant Australian Standards.

BlueScope will not accept any liability for performance concerns resulting from the use of inappropriate and/or incompatible materials. In addition, BlueScope accepts no liability in relation to the durability performance of any fastener or fastener coating.

Table 1. Fastener selection for use with products manufactured from BlueScope coated strip and sheet products

AS 4312:2019 Corrosivity Category (ISO9223:2012 Corrosivity Category)	Environment Severity	Nominal Distance From Marine Influence	Fastener Corrosion Class (AS3566.2 - 2025)	BlueScope Steel Products
Low (C2) – Medium (C3)	Mild / Moderate	> 1km	Class 3	ZINCALUME® steel COLORBOND® steel COLORBOND® Ultra steel
High (C4)	Moderate / Industrial / Severe Marine	200m - 1km	Class 4	ZINCALUME® steel COLORBOND® steel COLORBOND® Ultra steel
Very High (C5)	Moderate / Industrial / Severe Marine	<200m	Consult fastener supplier ^{iv}	COLORBOND® Ultra steel
			300 Series stainless steel	SuperDura® Stainless Steel
Extreme (CX)	Very Severe Marine / Industrial	<200m	300 Series stainless steel	SuperDura® Stainless Steel

- This table is to be considered in conjunction with AS 4312:2019
- The appropriate selection of product and fastener combination should be made with respect to the intended application of the product and its location.
- All fasteners used should have an equivalent, or superior service life and must be compatible with the selected BlueScope product.
- Fastener manufacturers must provide a performance statement confirming that their product is fit for use with metal claddings in C5 zones for minimum of 10 years.

Washers used with fasteners

The washer component of self-drilling screws must be manufactured from materials compatible with the roofing, walling and accessory material.

Washers containing significant levels of conductive carbon black fillers are **NOT** suitable for use with COLORBOND® prepainted steel, SUPERDURA® Stainless steel or ZINCALUME® aluminium/zinc/magnesium alloy coated steel products. Therefore, fasteners must be assembled with washers substantially free of carbon black fillers i.e. non-conductive.

Fixing the sheeting

In accordance with Section 4.7 of Australian Standard AS 1562.1:2018 *Design and installation of sheet roof and wall cladding – PART 1: Metal*, unless otherwise specified, all fasteners shall be installed normal to the plane of the roof or wall, and all fasteners that pierce the cladding shall be provided with adequate sealing to prevent leakage.

- Crest fasteners: shall be tightened no more than is necessary to form a weatherproof seal without deformation of the sheet profile or damage to the sealing systems (refer Figure 1 below).
- Valley fasteners: care shall be taken to ensure an adequate seal to prevent leakage, particularly where valley fasteners are used in roofing applications.
- Fastener length selection should be appropriate for the profile and insulation detail to ensure the correct screw setting depth is achieved for the relevant batten material.

Figure 1. Correct tightening (driving) of fastener



Fastener shank corrosion

In certain environments the fastener may be exposed to a greater risk of corrosion as a result of location, building design or specific internal environments (e.g. high condensation, intensive animal farming etc.). In such cases, consideration should also be given to corrosion protection of the exposed fastener shanks.

Related BlueScope Technical Bulletins

[Technical Bulletin TB-1A](#) *Steel roofing – product selection guide*

[Technical Bulletin TB-1B](#) *Steel walling – product selection guide*

[Technical Bulletin TB-8](#) *Flashing materials for exterior BlueScope coated steel products*

[Technical Bulletin TB-13](#) *General guide to good practice in the use of exterior BlueScope coated steel products*

[Technical Bulletin TB-14](#) *Professionals' Guide to Australian Standards for steel sheet and strip products*

[Technical Bulletin TB-15](#) *Selection and use of steel eave, gutter, downpipe and fascia products*

[Technical Bulletin TB-35](#) *Australian salt marine classifications*

[Corrosion Technical Bulletin CTB-12](#) *Dissimilar metals*

Referenced Australian Standards

AS 1562.1:2018 *Design and installation of sheet roof and wall cladding – Metal*

AS 4312:2019 *Atmospheric corrosivity zones in Australia*

Referenced International Standards

ISO 9223:2012 *Corrosion of metals and alloys – Corrosivity of atmospheres - Classification, determination and estimation*

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