

SHEDS AND GARAGES

TECHNICAL BULLETIN TB-30

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INTRODUCTION

To ensure the longevity of COLORBOND® prepainted steel and ZINCALUME® zinc/aluminium alloy-coated steel used in the manufacture of sheds or garages, the following guidelines are recommended.

MAINTENANCE

Some areas of a shed or garage, eg the top of roller doors or overhanging eaves, may be sheltered from general rain washing (“*unwashed areas*”). In these regions dust and dirt tend to build up, which in combination with condensation, may lead to accelerated corrosion. These corrosion effects may be prevented with regular washing with fresh clean water.

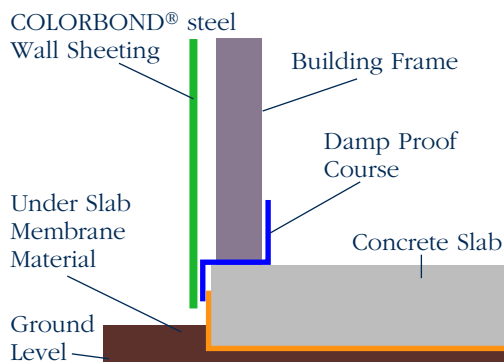
DESIGN

In order to obtain optimum performance of the ZINCALUME® steel or COLORBOND® steel product, correct design and erection is essential.

Edge Detailing

It is critical that a free drip edge be maintained for all ZINCALUME® steel and COLORBOND® steel products. This is to enable moisture to drain freely from the sheared edge of the steel product. It is envisaged that a clearance of 15mm should be sufficient for this purpose. This is particularly important at the base of the shed or garage wall. Please refer to Figure 1.

Figure 1 – Simple design of free drip edge



The consequence of not maintaining a free drip edge is accelerated corrosion. This is due to the retention of moisture at the cut edge of the steel, when held in contact with other materials. Bricks, pavers, concrete slabs and even other

metallic products will contribute to this mechanism when installed incorrectly. Please refer to Figure 2.

Figure 2 – Corrosion due to inappropriate wall design.



Formwork

Erecting the shed prior to the concrete slab being poured, consequently using the steel walling as formwork, is not recommended. The predominant problem associated with this poor practice is accelerated corrosion due to:

- Contact with wet cement, which is strongly alkaline.
- Shrinkage of cured concrete enabling the build-up of dirt and debris in the gap left between the slab and the wall.
- Failure to maintain a free drip edge as outlined previously.

Gutter Design

Gutter design should ensure that moisture is allowed to drain freely from the roof and not be allowed to enter the interior of the shed or garage. Incorrect design can lead to the corrosion of interior steel components as well as damage to its contents.

FASTENERS

The correct selection of fastener for use in the erection of the shed or garage is of paramount importance for long term structural performance and aesthetics. It is recommended that Australian Standard AS3566 be consulted before selection of fasteners. For further information, refer to TB-16 “Fasteners For Roofing and Walling Product-Selection Guide”.

IMMERSION

Moisture or moisture retaining materials should not be allowed to remain in intimate contact with ZINCALUME® steel or COLORBOND® steel products. Such contact will ultimately result in perforation of the material.

The build-up of grass cuttings, leaves, soil from gardens, mulch, compost, sand, ashes or similar must be avoided. Failure to prevent this build-up will cause premature corrosion of ZINCALUME® steel and COLORBOND® steel. This occurs as a direct result of corrosion mechanisms associated with the wet poultice held against the coated steel surface. Please refer to Figure 3.

Figure 3 - Corrosion due to immersion in soil.



CHEMICAL USAGE / STORAGE

Sheds and garages are often used for the storage of small quantities of various household and garden chemicals. It is well known that direct contact with some chemicals (*in the form of solids, liquids or vapours*) may initiate corrosion of steel products. BlueScope Steel Limited recommends that chemicals be contained to prevent such contact. In the event of a spillage it is recommended that the material be cleaned up and disposed of in a safe and responsible manner.

Whilst BlueScope Steel is unable to recommend specific methods for removal of individual chemical contaminants, affected areas of the shed or garage should be cleaned in the appropriate manner and then thoroughly rinsed with fresh water.

The information and advice contained in this Bulletin is of a general nature only, and has not been prepared with your specific needs in mind. You should always obtain specialist advice to ensure that the materials, approach and techniques referred to in this Bulletin meet your specific requirements.

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