

Overpainting and restoration of exterior BlueScope Steel products

INTRODUCTION

Next generation COLORBOND® pre-painted steel with Activate™ technology is manufactured by BlueScope Steel on a continuous coil paint coating line. This involves the application of high quality paint to a metallic coated steel substrate, which is then baked in a high temperature oven, to create a durable finish.

ZINCALUME® aluminium/zinc/magnesium alloy coated steel (also manufactured by BlueScope Steel) is supplied with a specially formulated clear resin on the surface to avoid fingerprint marks during installation. Galvanised steel has a zinc coating and is supplied in the passivated condition to protect against surface corrosion during storage.

If required, COLORBOND® steel, ZINCALUME® steel and galvanised steel can be successfully overpainted. However, the following should be considered:

- Air drying paints have different weathering characteristics to COLORBOND® steel. This means that the high durability of the COLORBOND® steel finish is often not matched by air-dried paints, including touch-up paint; and
- The overpainting of COLORBOND® steel, ZINCALUME® steel or galvanised steel will void any warranties issued by BlueScope Steel.

NOTE:

The advice provided in this Technical Bulletin is not applicable to COLORBOND® Stainless steel or COLORBOND® Metallic steel products. Please consult BlueScope Steel Direct for advice on overpainting these products.

GENERAL NOTES ON OVERPAINTING COLORBOND® STEEL, ZINCALUME® STEEL AND GALVANISED STEEL

- It is normal practice to ensure that any surface to be painted is in a suitable condition for painting. The most appropriate preparation is dependent on the age and condition of the surface. *Table 1* and *Table 2* provide recommendations on surface preparations for COLORBOND® steel, ZINCALUME® steel and galvanised steel prior to overpainting.
- The most suitable paint type for overpainting BlueScope Steel coated steel products is generally water-based acrylic. However, in more corrosive salt marine locations (refer to **Technical Bulletin TB-35 Australian Salt Marine Classifications**), it may be necessary to choose a paint system that has enhanced corrosion resistance (for example, inclusion of a zinc-rich primer).
- Due to ongoing improvements in paint technologies, at any one time there are numerous potentially suitable paint products available. It is therefore recommended that a reputable paint supplier be consulted (refer to *Table 3*) to determine the most appropriate paint system for your particular application and environment.
- It is recommended that the paint supplier's safety guidelines are followed, especially those regarding the wearing of appropriate personal protective equipment.
- Ensure conformance to local legislative requirements for "Working at Heights" and local water restrictions.

- It is recommended that paints from different suppliers are not mixed (for example, primer and topcoats).
- Note that not all post paint systems available are suitable for use in the collection of drinking water. Therefore, if a paint system is applied to a roof used for drinking water collection, ensure that it is recommended by the paint supplier for this purpose.
- Air drying paints have different weathering characteristics to oven cured pre-painted products like COLORBOND® steel. Therefore, areas overpainted with air-drying paints to match adjacent COLORBOND® steel areas may weather at a different rate and vary in appearance over time.

REPAIR OF MINOR SCRATCHES AND BLEMISHES

BlueScope Steel does not recommend the use of touch-up paint to repair damage or scratches to the painted surface. As explained above, air-drying paints have different weathering characteristics to COLORBOND® steel, leading to variations in appearance over time where touch-up paint has been used. BlueScope Steel has no recommended method for the removal of touch-up paint.

Minor scratches (< 2mm in width and unnoticeable from ground level) should be left alone as the available metallic coating will protect against corrosion. If scratches are more noticeable on new material, it is the recommendation of BlueScope Steel to replace the affected product.

Galling is generally only superficial damage caused by painted surfaces rubbing together as a result of vibration and inter-sheet movement during transport. Treat as per minor scratches.

Table 1: Recommended surface preparation for COLORBOND® steel

CONDITION	RECOMMENDED PREPARATION
Brand new (typically less than 1 year of weathering)	<p>Mechanical abrasion</p> <ol style="list-style-type: none"> Using a mop or a soft nylon bristle broom, wash the COLORBOND® steel surface with household detergent and water to remove all major loose particles that may damage the surface in subsequent procedures. Rinse thoroughly with fresh potable water and allow surface to dry. Slightly roughen the new surface lightly with Scotch-Brite® type pads. This is intended to provide a “key” to enhance adhesion of the selected paint finish by removing surface gloss. Take care not to remove the existing paint surface on tension bends. Please note that steelwool must not be used as an abrasive medium as it will generate swarf (small metallic particles), which will damage the material surface. For further information on swarf, refer to Technical Bulletin TB-5 Swarf Staining of Steel Profiles. Using a mop or a soft nylon bristle broom, wash the COLORBOND® steel surface with household detergent and water. Rinse thoroughly with fresh potable water and allow surface to dry.
Aged (typically more than 1 year of weathering)	<p>Natural weathering – After 1-2 years of service COLORBOND® steel will typically have a uniformly weathered surface as indicated by a slight reduction in gloss appearance. A uniformly weathered surface should provide adequate adhesion of the selected paint finish. Using a mop or a soft nylon bristle broom, wash the COLORBOND® steel surface with household detergent and water. Rinse thoroughly with fresh potable water and allow surface to dry.</p>

Table 2: Recommended surface preparation for ZINCALUME® steel and galvanised steel

CONDITION	RECOMMENDED PREPARATION
Brand new or evenly weathered surface (usually well washed)	Using a mop or a soft nylon bristle broom, wash the surface with household detergent and water. Rinse thoroughly with fresh potable water and allow surface to dry.
Damaged areas (i.e. corrosion product evident)	Repair of damaged areas where base metal has been exposed and rust is apparent, can be undertaken by first removing all rust thoroughly with a stiff nylon bristle brush. (NOTE: Care should be taken to only remove corrosion products and not the metallic coating.) Sweep away all loose particles, then thinly apply a zinc rich etch primer as recommended by a reputable paint supplier to any prepared areas.

NOTE:

The condition of the surface will depend on a number of factors, in particular product age, orientation (i.e. north, south, east or west facing), environment, exposure and application.

OVERPAINTING THE SURFACE

Apply the selected paint finish (refer to Table 3 below) to the clean prepared surface. Ensure manufacturer’s instructions are followed, especially with regard to application and film thickness.

Table 3: Paint supplier contact details (in alphabetical order):

PAINT SUPPLIER	CUSTOMER SUPPORT	WEBSITES
Dulux	132 525	www.dulux.com.au www.duluxprotectivecoatings.com.au www.duspec.com.au
PPG	1300 659 666	www.ppgpmc.com.au
Taubmans	131 686	www.taubmans.com.au
Wattyl	132 101	www.wattyl.com.au

NOTE:

i. This list is accurate at time of publication and is by no means exhaustive.

ii. The overpainting of COLORBOND® steel, ZINCALUME® steel or galvanised steel will void any warranties issued by BlueScope Steel. Should, for any reason, overpainting be undertaken on behalf of and under instruction from BlueScope Steel, then a future warranty (if any) position will be as negotiated between the customer and BlueScope Steel.

RELATED BLUESCOPE STEEL TECHNICAL BULLETINS

Technical Bulletin TB-5 Swarf Staining of Steel Profiles

Technical Bulletin TB-35 Australian Salt Marine Classifications

If you have any questions regarding this Bulletin, please contact BlueScope Steel Direct on 1800 800 789.

To ensure you have the most current Technical Bulletin, please go to bluescopesteel.com.au



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