

OVERPAINTING AND RESTORATION OF COLORBOND® PREPAINTED STEEL SHEET

TECHNICAL BULLETIN TB-2

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INTRODUCTION

COLORBOND® pre-painted steel for exterior applications is zinc/aluminium alloy coated or zinc coated steel sheet painted on one of BlueScope Steel's continuous strip coating lines. The paint system used is oven cured during the production process. There are a range of COLORBOND® steel products, each with specific paint systems, designed for specific applications.

Several different but related circumstances are encountered in the maintenance of COLORBOND® steel surfaces. To avoid confusion the following terms and their meaning are given:

Restoration – the repair of COLORBOND® steel surfaces by the use of one or more of the techniques described below.

Overpainting – the complete overpainting of the surface as in the case of normal maintenance after years of service or where a change of colour is desired.

Accessory Painting or Match Painting – the application of colour-matched paint to unpainted small accessory items to match the COLORBOND® steel's colour being used on the building. Such small accessories may include gutter corners, down pipes, fastener heads, doors, windows, pergolas, fascias and gutter brackets.

Repair of minor scratches and blemishes – Although BlueScope Steel does not recommend the use of Touch Up paint; it is acknowledged that some people believe they have no option but to apply small amounts of paint to cover scratches. Our recommendation, not to touch up, is based on the fact that minor scratches (< 2mm in width and unnoticeable from the street) should be left alone. The available metallic coating will protect the roofing sheet. If scratches are more noticeable, it is the recommendation of BlueScope Steel to replace the affected sheet.

Galling – generally only superficial damage caused by surfaces rubbing together as a result of vibration and interwrap movement during transport.

COLORBOND® PRE-PAINTED STEEL SURFACES (Except COLORBOND® Stainless Steel)

New Surfaces

To satisfactorily overpaint any brand new COLORBOND® steel roofing, walling or accessories, residual surface lubricant from the

painting or subsequent roll-forming processes must be removed as follows:

1. Using a mop or a soft nylon bristle broom, wash the COLORBOND® steel surface with household detergent and water. Then hose down thoroughly with fresh water.
2. Slightly abrading a new surface lightly with 320-400 grade paper or scotchbrite pads to remove surface gloss, is necessary to provide adequate adhesion of the overpainted coating.
3. Rinse with clean fresh water and allow to dry.
4. Apply the selected paint finish to the clean prepared surface. (Dulux Roofshield has been approved by BlueScope Steel as a suitable overpaint system.)

Old Damaged Areas

Repair of old 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. (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. Then apply the selected paint finish to the clean prepared surface, carefully following manufacturer's instructions, especially with regard to film thickness.

OVERPAINTING COLORBOND® STAINLESS STEEL

COLORBOND® Stainless steel has a PVDF top coat, which requires a different treatment and paint system for overpainting, as follows:

Step 1: Prepare the surface with methyl ethyl ketone (i.e. "MEK") solvent.

Step 2: Apply an epoxy mastic tie coat.

Step 3: Apply a polyurethane finish coat.

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 for this purpose.

All of these paints have different weathering characteristics to the oven-cured coating on COLORBOND® steel and original areas will weather at a different rate to the newly applied air-drying paint.

ACCESSORY PAINTING OR MATCH-PAINTING

The painting of accessories and trim, such as ridge capping, gutter brackets, downpipes, fastener heads, etc, to match COLORBOND® steel colours should not be confused with touch up painting of COLORBOND® steel. Accessory and match painting of COLORBOND® steel surfaces is similar to overpainting and therefore paints and techniques used are the same. The same comments apply for areas used for the collection of drinking water. For accessory and match painting of ZINCALUME® steel or other non-painted surfaces, refer to Table 1.

Any building project using COLORBOND® prepainted steel will present a better overall, lasting appearance if any necessity for in situ match painting is eliminated. This can usually be achieved by:

1. Using COLORBOND® steel throughout for rainwater goods and accessories.
2. Using sensible handling methods to eliminate or at least minimise coating damage.
3. Painting non-COLORBOND® steel rainwater goods and accessories prior to installation.
4. Using fasteners with coloured heads or using plastic snap-on caps on fastener heads.
5. Rejecting severely damaged product.

HANDLING COLORBOND® STEEL

COLORBOND® steel is prefinished steel. It is painted before an article is fabricated or formed from it. Products made from COLORBOND® steel are therefore finished products and should be handled and treated in a manner befitting any high quality finished article. Fabricators and erectors of cladding, rainwater goods and accessories, fences, etc, and other following trades should ensure that care is taken to protect COLORBOND® steel items from careless and unnecessary damage during handling and fixing.

OVERPAINTING ZINCALUME® ZINC/ALUMINIUM ALLOY-COATED STEEL

ZINCALUME® steel (and Galvanized steel if necessary) can be painted by following simple guidelines, much of which has been mentioned previously.

The surface should be clean and dry. Any corroded or damaged areas can be treated in a similar way to repairing old damaged sections of COLORBOND® steel.

The following table should be consulted for the correct choice of paint system for different locations.

Table 1: OVER PAINTING ZINC-COATED OR ZINCALUME® STEEL SHEET

(a) Recommendations for rural, urban and mild conditions greater than 1km from surf.

ZINCALUME® steel may be painted quite successfully using readily available primer and finish coats.

Primer Type*	Application	Brand Example	Finish Type	Application	Brand Example
Water Borne Acrylic	Brush/spray	Dulux Galvanised Iron Primer Tradex Quik Prep Etch primer Wattyl Galvanised Iron Primer	Water Borne Acrylic	Brush/spray	Dulux Roofshield Wattyl Solargard Plus Taubmans Sunproof Max

* Generally not necessary for this level of exposure.

(b) Recommendations for moderate Industrial and moderate coastal conditions between 600m and 1 km from surf, depending on terrain and prevailing winds.

ZINCALUME® steel may be painted quite successfully using readily available primers and finish coats.

Primer Type	Application	Brand Example	Finish Type	Application	Brand Example
Water Borne Acrylic Etch Primer	Brush/spray	Wattyl Galvanised Iron Primer Dulux Galvanised Prep Etch primer Taubmans Tradex Quik Prep Etch primer	Water Borne Acrylic	Brush/spray	Wattyl Solargard Plus Dulux Roofshield Taubmans Sunproof Max

(c) Recommendations for severe industrial and severe coastal conditions within approximately 600m of surf, depending on terrain and prevailing winds.

The paint types listed are the most appropriate for these severe conditions, and maintenance frequency will vary with the degree of severity.

Primer Type	Application	Brand Example	Finish Type	Application	Brand Example
Epoxy	Brush/spray	International Paints Intergard 269	Acrylic	Brush/spray	International Paints Interfine 629

(d) Recommendations for very severe coastal and buried or Immersion conditions, e.g. tanks storing ground waters.

Primer Type	Application	Brand Example	Finish Type	Application	Brand Example
Epoxy	Brush/spray	International Paints Intergard 269	Acrylic	Brush/spray	International Paints Interfine 629

General notes on the above tables

- Supplier's recommendation should be followed explicitly in regard to surface preparation, application and appropriate undercoats and primers.
- As conditions become more severe, paint system recommendations may only differ in the amount (dry film build) applied.
- Do not mix different suppliers products eg primer and topcoats
- Follow paint suppliers safety guidelines especially those regarding the wearing of appropriate personal protective equipment.
- When in doubt, speak to a reputable paint supplier

Not all the paints mentioned above have been evaluated by BlueScope Steel Limited and new paint systems become available regularly. Some paint suppliers may suggest "Tiecoats" be used in certain applications. Tiecoats are beyond the scope of this Technical Bulletin.

The overpainting of ZINCALUME® steel or COLORBOND® 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.

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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