

CARE AND STORAGE OF BLUESCOPE EXTERIOR PRODUCTS PRIOR TO INSTALLATION

TECHNICAL BULLETIN TB-7

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This issue supersedes all previous issues

INTRODUCTION

Zinc-coated, ZINCALUME® zinc/aluminium alloy coated steel and COLORBOND® pre-painted steel roofing and walling products are normally delivered to the building site in strapped bundles.

If not required for immediate use, sheets or bundles should be neatly stacked clear of the ground. If left in the open, they should be protected from rain and moisture with tarpaulins or similar covers. On no account should steel sheeting be allowed to get wet while still bundled or nested in stacks. Rain and condensation are easily drawn between the surfaces of nested sheets by capillary action or driven in by wind action and, as this trapped moisture cannot evaporate normally, it can cause deterioration of the coating which may lead to a reduced life expectancy or poor appearance (*wet storage stain*).

If packs become wet the sheets should be

separated without delay. The sheets should then be stacked so that air circulation completes the drying process.

Wet storage stain can occur from condensation alone – even in dry weather. Therefore keep the product dry to reduce the risks of water damage and keep storage time to a minimum.


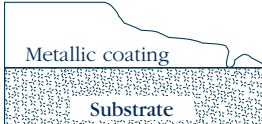

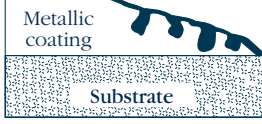

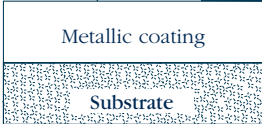

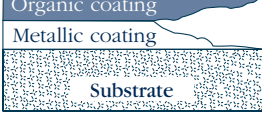
ZINC-COATED, GALVALUME® STEEL AND ZINCALUME® STEEL SHEET AND STRIP

Zinc-coated, GALVALUME® steel and ZINCALUME® steel are generally provided with a surface passivation treatment. This is an in-line process on the cooled strip after hot-dip metallic coating and prior to recoiling.

The purpose of this passivation is to afford some measure of protection to coils or packs if they get wet and to assist exposed exterior metallic finishes to weather evenly when installed on site.

ZINCALUME® steel also offers the benefit of a thin resin film applied to minimise the

Table 1: Summary of Product Appearance and Related Severity of Attack Arising from Wet Storage.

PRODUCT	APPEARANCE	SEVERITY →	RESTORATION
 <p>GALVABOND®</p>	<ul style="list-style-type: none"> • White to grey • Light film to heavy deposit • Isolated presence of red iron oxide • Heavy presence of red iron oxide 		<p>Light corrosion Remove corrosion product with a kerosene rag</p> <p>Heavy corrosion Refer Table 2.</p>
 <p>GALVALUME®</p>	<ul style="list-style-type: none"> • Brown appearance negligible coating loss • Black appearance up to 80% coating loss <p><i>Where the material is feed for coil coating, contact your local BlueScope Steel sales office for advice</i></p>		<p>Light corrosion May be acceptable to end user</p> <p>Heavy corrosion Table 2 or replace depending on severity</p>
 <p>ZINCALUME®</p>	<ul style="list-style-type: none"> • Temporary white blushing* • Light film of white oxide • Heavy white to grey/black oxide 		<p>Light corrosion/White Blushing Aesthetic problem only</p> <p>Heavy corrosion Prepare surface & overpaint with water-based acrylic</p>
 <p>COLORBOND®</p>	<ul style="list-style-type: none"> • Light stain and/or paint softening • Severe corrosion (undercutting, blistering) 		<p>Light corrosion May be acceptable to and user</p> <p>Heavy corrosion Table 2 or replace depending on severity</p>

* Note: Occurs from use of inappropriate roll forming lubricant

formation of black storage stain should the product become wet during transport or storage. Zinc-coated products are given the traditional chemical passivation.

While these protective measures are effective, particularly the ZINCALUME® steel treatment, the protection they afford to wet storage damage is only over a limited period and sensible site storage practices must still be observed.

SUMMARY

It is again stressed that water damage is a result of neglect. Closely packed materials must be kept dry until separated. Bundles must be covered during transport, warehousing and site storage.

In the case of close nesting roofing profiles such as corrugated steel and the timely completion of roofing projects, it is often

necessary to load these onto a roof as a bundle where complete covering can be impractical.

A useful means of protection is to use an appropriate strip of polythene dampcourse or similar building plastic material to minimise water ingress as follows:

- The strip length should exceed the bundle width by about 200 to 300 mm. Place the strip under the end of the top sheet so that 100 to 150 mm of its width protrudes from each side of the bundle.
- Fold the protrusion down to form a visor which will protect the end of the bundle from rain.
- This measure should only be necessary on the high end if the bundle is on a slope.
- The strip should be used overnight to protect the unused portion of the bundle during fixing.

Table 2: General approach to the restoration of corrosion damaged zinc-coated or ZINCALUME® steel sheet

CLEANING	PRIMING AND FINISHING
<ol style="list-style-type: none"> 1. Remove dirt by washing with water. 2. Wipe off greasy deposits with a suitable solvent. 3. Remove any corrosion product by wire brushing, taking care not to unnecessarily remove any of the metal coating. 4. Areas devoid of metal coating will require spot priming with a zinc-rich primer. 	<ol style="list-style-type: none"> 1. Select paint system with due regard to both environmental and substrate requirements* 2. Follow the paint manufacturer's instructions explicitly. 3. Do not mix different proprietary brands of primer and finisher. 4. Apply two finishing coats in addition to the primer 5. Care should be taken to provide adequate ventilation as some volatile compounds may be toxic. 6. Where possible, contact with the skin should be avoided.

* Note: BlueScope Steel recommend the use of Water-based acrylics over ZINCALUME® steel.

For further details refer to Technical Bulletin TB-2 "Overpainting and Restoration of COLORBOND® Prepainted Steel Sheet".

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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