



United States Steel

Technical Bulletin Construction:
Storage and Handling of Coated
SheetACRYLUME®

For further assistance on the use of steel building panels or related topics, contact U. S. Steel Construction Sales

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Storage and Handling of ACRYLUME® Coated Sheet

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Product Description

ACRYLUME®¹ Coated Sheet Steel is U. S. Steel produced GALVALUME®¹ Sheet Steel with a thin acrylic-based polymer coating. ACRYLUME® Coated Steel Sheet incorporates a tough and durable protective surface film that assists in roll forming of the sheet and imparts lasting long-term corrosion protection to the material. However, the acrylic is extremely thin (approximately 1 micrometer or 1/25 of a mil) and can be damaged by improper handling. As with other coated steel products, such as “bare” GALVALUME® Coated Sheet Steel, the acrylic coated sheet should be stored and handled carefully. This includes proper storage and handling at the roll former and on the job site.

Storage and Handling

Conditions that have a negative impact on the ACRYLUME® Coated Sheet Steel, as well as GALVALUME® Sheet Steel include:

- Marine atmospheres with constant spraying of salt or fresh water.
- Fallout of corrosive materials including, but not limited to, chemicals, fumes, ash, cement dust, and animal wastes.
- Water runoff from lead or copper articles or metallic contact with lead or copper.
- Corrosive fumes or condensates generated or released within the building.

Situations that may affect the long-term corrosion resistance of the acrylic-coated sheet include:

- Chemical or mechanical damage of the acrylic or metallic coating during shipment, handling, fabrication, or erection.
- Failure to provide free drainage of water including condensation.
- Failure to remove debris from the surface of the material.
- Contact with green or wet lumber.
- Presence of damp or wet insulation materials.

¹ ACRYLUME® is a registered trademark of United States Steel Corporation.

¹ GALVALUME® is an internationally registered trademark of BIEC International, Inc. and some of its

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Other issues to consider include material treatment at the roll former and job site:

(A) At the roll former:

- Coils must be used within 90 days of receipt at the buyer's plant.
- During storage, the coils must be kept in a dry, temperature-controlled environment.
- Roll forming should be done without the addition of oil- or water-based lubricants.
- During storage in bundle form, the material should be kept in a dry and temperature-controlled environment.
- During shipment, the bundles must be covered to protect the coils from any contact with moisture.

(B) At the construction job-site, when panels are stored outside, the following precautions are essential:

- Bundles should be covered with a waterproof tarpaulin or canvas, and the bottom should be left open for adequate air movement. Leave space between the bundles and the cover to allow air circulation.
- Store the bundles off the ground and on a slope so that if rain should penetrate the covering, water will drain away.
- Inspect the storage site regularly to ensure that moisture has not penetrated the bundle stack.
- The bundles must also be protected from exposure to corrosive chemicals and fumes.
- If possible, the bundles should be stored under roof and always away from openings to the outside.

Acrylic coatings do provide many benefits over traditional chemically treated sheet steel products but are not impervious to damage. Improper storage and handling can have a negative impact on the excellent corrosion resistance of these coatings.

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