



Construction

ACRYLUME®

Data Sheet

Corrosion Performance

The results of accelerated corrosion tests show the superiority of ACRYLUME® Coated Sheet when compared with today's conventional chemically treated GALVALUME® Coated Sheet.

Wet Stack Test

Designed to simulate storage of sheets in either coil form or as a stacked bundle at the job site

Test samples stacked tightly in a bundle - wetted between the individual panels every two days with deionized water

Tested at 100° F for 750 hours

HOURS IN TEST	ACRYLUME® COATED SHEET	CT1 ¹	CT2 ¹
250	Light haze	Light surface spots	Dark black spots and edges
500	Light haze	Light surface patches	Heavy black patches
750	Light haze	Uniform surface darkening	Heavy, dark black patches

¹ - CT1 and CT2 represent two different, widely used chemical treatments

Water Immersion Test

Designed to simulate ponding of water on a low slope roof

Samples immersed in deionized water

Water temperature - 100° F

Test duration - 2,000 hours

HOURS IN TEST	ACRYLUME® COATED SHEET	CT1 ¹	CT2 ¹
500	Slight dulling	Initial dark spots	Dark patches
1000	White patches with dark spots	Dark & light stains	Completely blackened
2000	White surface, dark edges	Dark stains	Completely blackened

¹ - CT1 and CT2 represent two different, widely used chemical treatments

Salt Spray Test

Tested per ASTM B117

5 percent salt solution

30-day test duration

HOURS IN TEST	ACRYLUME® COATED SHEET	CT1 ¹	CT2 ¹
250	No Activity	White haze with black spots	White haze with small black spots
500	Tiny spots, evidence of initial activity	White haze with black streaks	White haze with small black streaks
720	Small spots with local light streaks	Light haze with dark spots	Dark haze with dark spots

¹ - CT1 and CT2 represent two different, widely used chemical treatments



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Storage and Handling

ACRYLUME® Coated Sheet incorporates a tough and durable protective surface film that assists in the roll-forming of the sheet and imparts lasting long-term corrosion protection to the material. However, the acrylic is extremely thin (approximately one micrometer or 1/25th of a millimeter) and can be damaged by abusive handling. As with other coated steel products, such as "bare" GALVALUME® Coated Sheet, the acrylic coated sheet should be stored and handled properly. This includes careful storage and handling at the roll-former and on the job site.

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

- Marine atmospheres with constant spraying of salt or fresh water
- Fallout of corrosive chemicals including, but not limited to, chemicals, fumes, ash, cement dust and animal wastes
- The life cycle costs of steel roofing and siding are very attractive
- Steel companies in the United States are competitive worldwide with regard to quality and cost

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

- Chemical or mechanical damage caused to 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
- Prolonged contact with green or wet lumber
- Presence of damp or wet insulation materials

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

At the job site:

- 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, temperature-controlled environment
- During shipment, the bundles must be covered to protect the shipment from moisture penetration

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

At the job site:

The bundles should be protected from the weather by storing them indoors or by storing the bundles on protected pallets with canvas or other waterproofing covering, leaving the bottom open for adequate air movement

The bundles must also be protected from exposure to corrosive chemicals and fumes

Acrylic coatings do provide many benefits over traditionally treated sheet steel products, but they are not completely impervious. Abusive storage and handling of the material can alter the excellent corrosion resistance of these coatings.