United States Steel Corporation

ACRYLUME®

PRODUCT | JANUARY 28, 2016

U. S. Steel ACRYLUME® steel sheet is a coated sheet product that combines the excellent corrosion resistance of GALVALUME® steel sheet with a clear organic resin surface treatment that is applied over the GALVALUME® coating. The surface treatment is essentially invisible but it provides excellent characteristics to enhance the performance and applicability of GALVALUME® steel sheet.

These enhancements include:

- Good rollformability without the need for oils
- Excellent transit and field-storage performance without staining
- Dramatic decrease in fingerprinting or footprinting during installation
- Long term surface brightness when exposed to the environment

Read more about the construction -specific aspects of ACRYLUME ® in the Technical Bulletins area of this page.

ACRYLUME® steel sheet is produced directly on the GALVALUME® steel sheet coating line. It is applied by rollcoating a uniform, thin film of a water-base acrylic solution onto both surfaces of the sheet. The sheet is then heated to dry the film, leaving a thin, hard acrylic coating on top of the GALVALUME® coating. The acrylic film contains corrosion inhibitors and provides lubricity for rollforming.

Aside from the special attributes of the acrylic coating, the product behaves very similarly to GALVALUME® product. The corrosion resistance that GALVALUME® offers in terms of time to the appearance of red rust in the atmosphere is unchanged. It behaves like GALVALUME® steel sheet except with respect to the features discussed above.

FOR FURTHER INFORMATION CONTACT:

Berridge Manufacturing Company
2610 Harry Wurzbach Road, San Antonio, TX 78209 (210) 650-3050
www.Berridge.com

or

United States Steel Corporation
https://www.ussteel.com/products-solutions/products/acrylume

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Construction Applications: ACRYLUME® Data Sheet

TECHNICAL BULLETIN | JANUARY 29, 2016

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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