



United States Steel

Technical Bulletin Construction:

ACRYLUME® Coated Sheet Steel

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

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Product Description

ACRYLUME® is the trade name for an advanced sheet steel product having a highly corrosion resistant coating of 55% aluminum-zinc alloy followed by a state-of-the-art polymeric passivation system. This passivation system consists of an acrylic-based polymer resin system and inorganic corrosion inhibitors.

ACRYLUME® Coated Sheet Steel was developed to allow roll-forming without the need for additional lubrication. This product provides the added benefits of greater resistance to hand and foot printing and will weather more uniformly. For highly visible applications, ACRYLUME® Coated Sheet has limitations. Since the acrylic passivation system is a thin, temporary, clear coating, differences in base metal surface could be noticeable, particularly if panels from different coils get mixed prior to shipping or at the job site. Also, the clarity of the passivation system may have some variation from one production lot to the next. If uniform appearance is critical to the end user, then a painted product would offer the best solution.

Product Attributes

ACRYLUME® Sheet Steel takes the superior performance attributes of GALVALUME® Coated Sheet Steel and combines them with the additional benefits provided by the acrylic passivation system. A few of these additional benefits include:

Increased Resistance to Hand and/or Foot Marking

The barrier protection of the acrylic coating significantly reduces the hand and foot marking, or “fingerprinting,” that can occur during installation. The acrylic resin system blocks the oils from the installer’s hands from reacting with the surface of the metallic coating, resulting in a more aesthetically acceptable panel surface.

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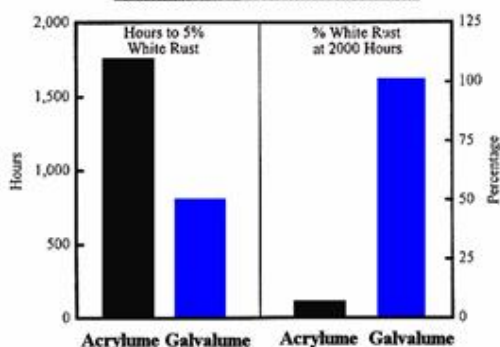
Increased Formability

GALVALUME® Coated Sheet Steel has been traditionally produced with a mill-applied vanishing oil, especially for bare applications. The vanishing oil furnished some transit corrosion protection, but its main purpose was to provide lubricity for roll forming operations. For difficult forming applications, like standing seam roofing (SSR), additional oil was often needed to successfully manufacture the panel. However, ACRYLUME® Coated Sheet Steel has been specifically designed to eliminate the need for oiling at the mill or at the roll former. ACRYLUME® Coated Sheet Steel has been successfully roll formed on some of the toughest SSR profiles in the industry without the need for any additional lubrication.

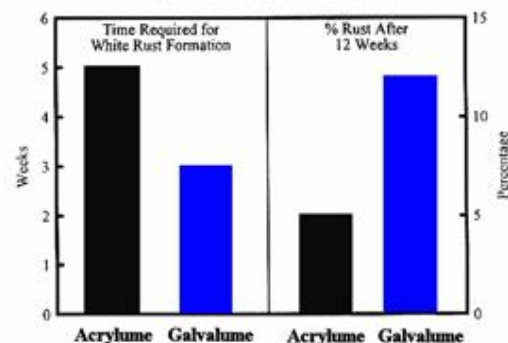
Increased Corrosion Resistance

The combination of the acrylic-based polymer resin system and the inorganic corrosion inhibitor provide ACRYLUME® Coated Sheet Steel with superior corrosion resistance in both transit corrosion and differential weathering after panel installation. The barrier properties of the passivation system provide increased protection during shipment and construction. The acrylic based coating is very thin and may be weathered away over time.

2000 Hour Water Immersion Test



12 Week Wet Stack Test



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Acrylume® Coated Sheet Steel - FAQs

- **Does ACRYLUME® Coated Sheet Steel have a warranty?**
ACRYLUME® Coated Sheet Steel is covered by the same warranty that currently exists for GALVALUME® Coated Sheet Steel.
- **Is ACRYLUME® Coated Sheet Steel incompatible with any other building materials?**
ACRYLUME® Coated Sheet Steel is incompatible with a few common building materials, which include contact with lead, graphite, copper and treated or wet lumber.
- **What are the frictional characteristics of ACRYLUME® Coated Sheet Steel?**
The coefficient of friction of ACRYLUME® Coated Sheet Steel is similar to that of our prepainted GALVALUME® Coated Sheet Steel and galvanized products. The same precautions should therefore be taken during erection as are taken with other prepainted products.
- **How Should ACRYLUME® Coated Sheet Steel be cleaned after project completion?**
ACRYLUME® Coated Sheet Steel is best cleaned by using water or a mild, non-abrasive cleaning solution with water. It should not be cleaned with industrial-type solvents.
- **What are the operational advantages for the use of ACRYLUME® Coated Sheet?**
ACRYLUME® Coated Sheet Steel is designed to be roll-formable without additional lubricating oil. This provides a cleaner roll forming operation. Our customers have noted that it is possible to transition from roll-forming ACRYLUME® Coated Sheet Steel, to roll-forming prepainted products on the same roll former, without the necessity of extensive clean-up of the roll-forming dies, thus providing productivity advantages.