



AST Hi-Acrylic Grain-Bin Base Sealant



AST Hi-Acrylic is an innovative evolution of more typically used sealants.

Extruded, rope-form or liquid applied sealants squeeze-out, are super-sensitive to temperature, inadequately fill voids, and do not follow thermal expansion and contraction changes.

AST Hi-Acrylic uses all of the time-tested sealing properties of a unique water-based asphalt emulsion modified for enhanced performance in cold and hot weather through the addition of advanced acrylics. The acrylics stabilize the material at high temperatures and extend flexibility in cold temperatures.

The resulting sealant blend is contained in a foam matrix which makes handling easy, compresses uniformly without overspill and provides lasting protection of the valuable contents of grain bins and elevators.

Product Description

EMSEAL AST Hi-Acrylic is a preformed, elastic, self-adhesive expanding tape seal. AST Hi-Acrylic is made of a resilient open-cell polyurethane expanding foam that has been impregnated with a water-based acrylic-modified asphalt emulsion.

Grain bin users determine the size of AST Hi-Acrylic suited to their flange designs and performance needs. The material is designed to provide a continuous seal between the concrete pad and flange without ongoing maintenance to this critical joint. AST Hi-Acrylic is excellent for sealing against infiltration of air, dust, water, insects, and pollutants.

Sealing between the AST Hi-Acrylic and the bottom of the metal flange is a result of the foam's cell structure, the impreg-

nation, and the compression of the AST Hi-Acrylic between the flange and concrete base-pad.

EMSEAL AST Hi-Acrylic is packaged precompressed in individually shrink-wrapped reels. The material contains a pressure-sensitive adhesive on one face that will adhere to the bottom of the flange which facilitates installation. AST Hi-Acrylic is applicator-friendly requiring no special tools.

AST Hi-Acrylic reels can be boxed in quantities of the manufacturer's preference for ease of inclusion as part of supplied grain bin systems. All ends are mitered for better field joining of the material. Installation instructions are included in every carton.

Advantages

- Excellent Weatherability Maintains properties with age; does not dry out
- Long-term water seal At appropriate compression will resist water penetration
- Vermin resistant Resists attacks by vermin--bugs, rodents, birds, etc.
- Fills imperfections Combination of supplied size and backpressure allows material to expand into voids
- Aggressive PSA Adheres to flanges to during field installations
- Maintenance free Does not have to be re-caulked
- Dimensional Stability Compresses significantly in one dimension only preventing displacement or extrusion from between sealed surfaces. This in turn eliminates a place where seed or grain gets trapped.

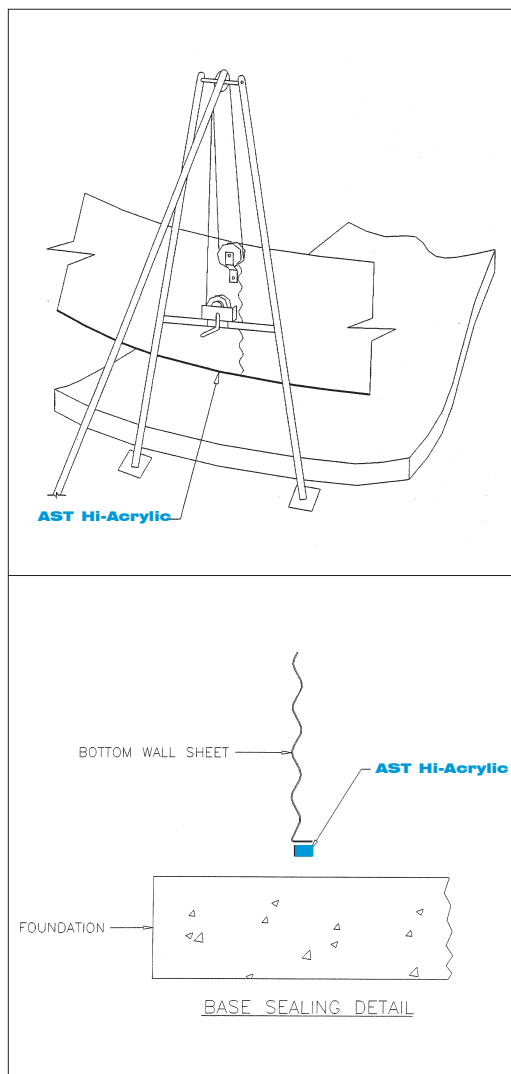


TABLE 1: Typical Physical Properties of AST

Property	Value	Test Method
BASE MATERIAL	OPEN CELL, HIGH DENSITY, POLY-URETHANE FOAM	N/A
Impregnation	Acrylic-modified asphalt	N/A
COLOR	BLACK	N/A
Tensile strength	21 psi min (145 kPa)	ASTM D3574
ELONGATION - ULTIMATE	150% MIN	ASTM D3574
Temperature range		ASTM C711
High - permanent	185°F (85°C)	
High - short term	203°F (95°C)	
Low	-40°F (-40°C)	
UV resistance	Excellent	
MILDEW RESISTANCE	EXCELLENT	
Resistance to aging	Excellent	
BLEEDING	NONE	
-40°F TO 180°F (-40°C TO 85°C)		
Compression set	3% max	ASTM D3574
70°C 50% RH after 72 hrs.		
THERMAL CONDUCTIVITY	0.34 BTU. IN/HR. FT ² . °F (0.05 W/M. °C)	ASTM C518
Low temperature flexibility	No cracking or splitting	ASTM C711
32°F to -10°F (0°C to -23°C)		
WATER VAPOR TRANSMISSION AT 25% COMPRESSION	0.011 PERMS	ASTM C355-64
Shelf Life	No Limit	

Installation Tips:

AST should be stored indoors at room temperature. Recovery is quicker when warm and slower when cold.

Application of AST in tropic conditions: AST's expansion rate is determined by the ambient temperature. In temperatures above 100°F (38°C) the AST will fully expand after the removal of the shrink-wrap making it easy to handle and fix to the bottom of the bin-flange. In no way does the full expansion of the AST during installation effect it's sealing ability.

- Surface Preparation: Joint surfaces must be free from gross irregularities, loose

particles, foreign matter such as dirt, dust, ice, snow, water, etc., and coatings such as grease, oil, release agents, lacquers, etc., that may be detrimental to the adhesion of the sealant.

- Remove AST from protective packaging.
- Expose self-adhesive side by removing release liner.
- Join consecutive lengths of material with a 45° miter.

For complete installation instructions see "AST/IST Installation Instructions"

Levels of Sealing

Level	Conditions	Compression	Sealing
1-No Seal	(material needs some compression to stay in joint)	Zero Compression	(fully expanded)
2-Heat & Cold, Dust, Acoustic		*18% compression	82%
3-Heat & Cold, Dust, Acoustic, Air		*66% compression	33%
4-Heat & Cold, Dust, Acoustic, Air, Vapor		*75% compression	25%
5-Heat & Cold, Dust, Acoustic, Air, Vapor, Water		*80% compression	20%

*compression from fully expanded size

For additional information, available sizing, samples, and pricing contact:

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