A SIKA COMPANY

EMSEAL AST Hi-Acrylic

Metal Roof & Building Sealants

Product Description:

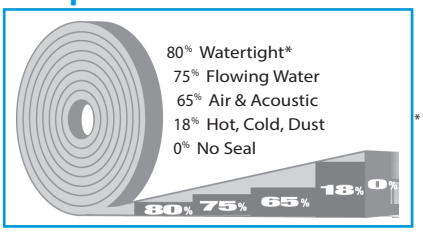
AST is a self-adhering tape seal made from resilient, open-cell polyurethane foam impregnated with a water-based acrylic-modified asphalt emulsion and then compressed to a sealing density level appropriate to the application. Typically, higher compression levels are required for watertightness in water run-off applications; lower compression can be used, for example, for snow seals at roof ridges.

AST replaces and outperforms liquid and butyl-tape sealants as well as closed-cell and unimpregnated open-cell foam closures.

Product Uses:

AST sealant tape is used to seal out dust, air, wind-driven snow, and moisture through joint details in metal buildings and roofs. **AST** is ideal as a filler in expansion/compression joints subject to movement from thermal expansion and contraction, and as a gasket in mechanically fastened, non-moving applications such as lap seams. **AST** is suitable for use against metal, plastic, wood, concrete, and other materials common in metal building structures.

Compression Levels



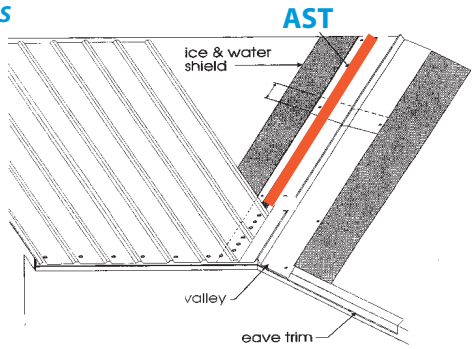
Higher levels of compression offer greater protection

* Watertight up to 5 PSF per ASTM E-331 modified to run 24 hours instead of standard 15 minutes. This equates to a 1-inch standing head of water for 24 hours without leakage.

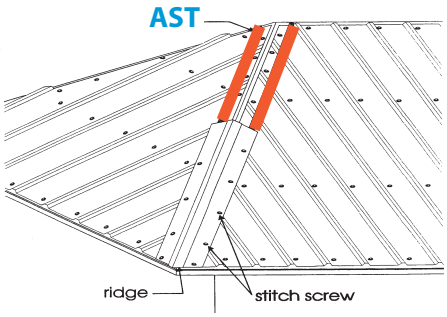
Product Features:

- *Will not dry out and become hard and brittle*
- *UV-stable*
- *Highly resistant to bugs and vermin*
- *Will not extrude from between joints like caulk or butyl tapes*
- *Conforms to contours and fills gaps*
- *Maintains a seal during thermal expansion and contraction of building panels*
- *Excellent compressibility and recovery (minimal compression set)*
- *Good thermal and sound insulator*
- *No shrinkage or blow-out due to closed-cell breakage*
- *Supplied with self-adhesive on one side. After removal of packaging, material begins gradual expansion - more slowly in cold weather than in hot.*

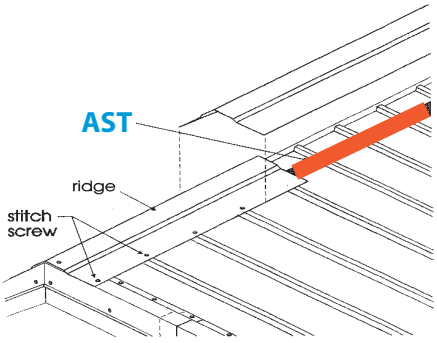
Valleys



Hips



Ridges



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Filling Voids and Panel Contours

Use AST Hi-Acrylic in all applications where the material will be allowed to expand to fill voids or follow panel contours.

- Ridges, Peaks, Hips
- Valleys, Valley Gutters
- Gables
- Inside/Outside Corners
- Window/Door Jambs
- Eaves

Gasketing Applications

Use AST Hi-Acrylic in flat-on-flat "gasket" applications where the material will be held at a high degree of compression by fasteners such as clips, screws, etc.

- Lap Seams
- Roof Penetrations, Skylights
- Vents and Louvers
- Base Angles
- HVAC/Utility Curbs

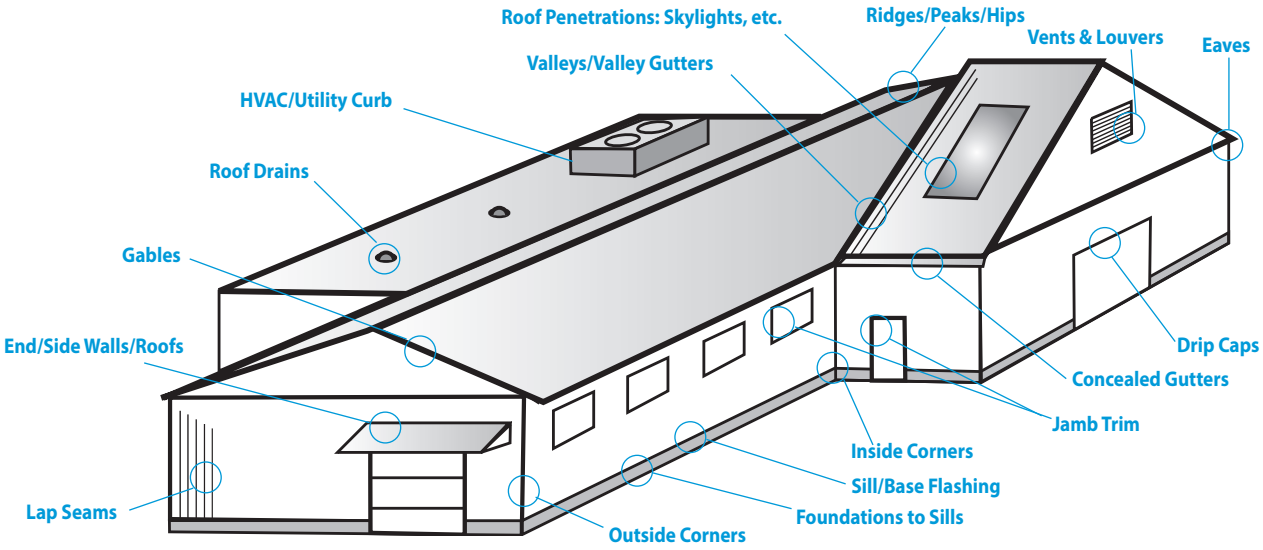

TABLE 1: Typical Physical Properties of AST

Property	*Value*	*Test Method*
Base Material	Open cell, high density, polyurethane 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 *High - permanent* *High - short term* *Low*	 185°F (85°C) 203°F (95°C) -40°F (-40°C)	ASTM C711
Softening point	140°F min (60°C)	ASTM D816
UV resistance	Excellent	
Mildew resistance	Excellent	
Resistance to aging	Excellent	
Bleeding *-40°F to 180°F* *(-40°C to 85°C)*	None (when compressed down to 20% of uncompressed thickness)	
Compression set 70°C 50% RH after 72hrs	3% max	ASTM D3574
Thermal conductivity	0.34 Btu. in/hr. ft².°F (0.05 W/m.°C)	ASTM C518
Low temp. flexibility *32°F to -10°F* *(0°C to -23°C)*	No cracking or splitting	ASTM C711
Water vapor transmission at 25% compression	0.011 perms	ASTM C355-64

Standard & Custom Sizes Available

The following are the most popular sizes for void-filling applications.

Supplied Size	Expanded Size	Box Quantity	Reels Per Box	Reel Length	Product Code
1/4" x 3/4" (6 x 20mm)	1" x 3/4" (25 x 20mm)	629.76 LF (192m)	32	19.68' (6m)	ASH-25-20-06
1/4" x 1" (6 x 25mm)	1" x 1" (25 x 25mm)	511.68 LF (156m)	26	19.68' (6m)	ASH-25-25-06
5/16" x 3/4" (8 x 20mm)	1 1/4" x 3/4" (30 x 20mm)	419.84 LF (128m)	32	13.12' (4m)	ASH-30-20-04
3/8" x 1 1/4" (10 x 30mm)	1 1/2" x 1 1/4" (40 x 30mm)	262.40 LF (80m)	20	13.12' (4m)	ASH-40-30-04

The following are the most popular sizes for tightly-squeezed gasketing applications.

Supplied Size	Expanded Size	Box Quantity	Reels Per Box	Reel Length	Product Code
3/32" x 3/8" (2.5 x 10mm)	3/8" x 3/8" (10 x 10mm)	1968 LF (600m)	60	32.8' (10m)	ASH-10-10-10
1/8" x 1/2" (3 x 12mm)	1/2" X 1/2" (12 x 12mm)	1640 LF (500m)	50	32.8' (10m)	ASH-12-12-10

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