

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



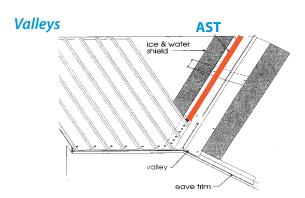
Higher levels of compression offer greater protection

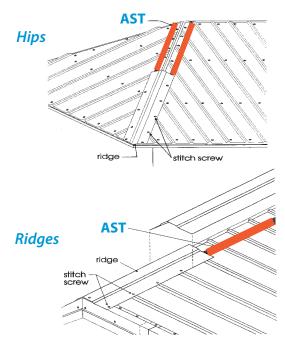
Watertight up to 5 PSF per ASTM E-331 modified to run 24 hours instead of standard 15 minutes. This equates to a 1-inch standing head of water for 24 hours without leakage.

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.









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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.

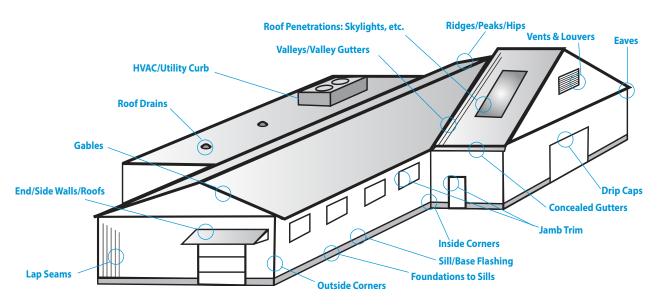
- Ridges, Peaks, Hips
- Inside/Outside Corners
- Valleys, Valley Gutters
- Window/Door Jambs
- Gables
- Eaves

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

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



| 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 $32^{\circ}F$ to $-10^{\circ}F$ (0°C to $-23^{\circ}C$) | 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 |