



IST Telecommunication Hut Sealant



IST 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.

IST uses the clean-handling sealing properties of a unique water-based acrylic dispersion which performs over temperature extremes. The acrylics are also compatible with concrete sealers which allows for spraying of units after assembly.

The acrylic 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 Telecommunications huts.

Product Description

EMSEAL IST is a preformed, elastic, self-adhesive expanding tape seal. IST is made of a resilient open-cell polyurethane expanding foam that has been impregnated with a water-based acrylic dispersion.

Telecommunications hut manufacturers determine the size of IST suited to their panel designs and performance needs. The material is designed to provide a continuous seal between panels without ongoing maintenance to this critical joint. IST is excellent for sealing against infiltration of air, dust, water, and pollutants.

Sealing between the IST and concrete components is a result of the foam's cell structure, the impregnation, and the

compression of the IST between components to be sealed.

EMSEAL IST is packaged precompressed in individually shrink-wrapped reels. The material contains a pressure sensitive adhesive on one face that will adhere to surfaces to facilitate installation. IST is applicator friendly requiring no special tools.

IST reels can be boxed in quantities of the manufacturer's preference for ease of inclusion as part of supplied Telecommunications Hut 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 components during installation
- 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.



Liquid-applied sealants rely on adhesion. Adhesion is weakest in tension. As structures expand and contract with thermal changes, liquid-sealants eventually separate from substrates.



By contrast IST exerts a continous backpressure thereby ensuring a seal regardless of movement.

Liquid-applied sealants may provide aesthetic versatility but should be backed up by IST to ensure watertightness at critical connections and penetrations.

TABLE 1: Typical Physical Properties of IST

Property	Value	Test Method
BASE MATERIAL	OPEN CELL, HIGH DENSITY, POLYURETHANE FOAM	N/A
Impregnation	Water-based, Stabilized Acrylics	N/A
COLOR	CHARCOAL GREY	N/A
Tensile strength	21 psi min (145 kPa)	ASTM D3574
TEMPERATURE RANGE		
HIGH - PERMANENT	249°F (120°C)	ASTM C711
LOW - PERMANENT	-40°F (-40°C)	ASTM C711
UV resistance	Excellent	
MILDEW RESISTANCE	EXCELLENT	
Resistance to aging	Excellent	
BLEEDING	NONE	
Compression set	5% max	ASTM D3574
THERMAL CONDUCTIVITY	0.34 BTU. IN/HR. FT ² . °F (0.05 W/M. °C)	ASTM C518



Installation Tips:

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

Application of IST in tropic conditions: IST's expansion rate is determined by the ambient temperature. In temperatures above 100°F (38°C) the IST 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 IST 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 IST 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

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

*compression from fully expanded size

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

EMSEAL JOINT SYSTEMS LTD. 108 Milk Street, Suite 3, Westborough, MA 01581-1228

TOLL FREE from the US & CANADA: 1-800-837-333

PH: 860-677-7386, FX: 860-677-1408 On the web: www.emseal.com

Area Distributor: