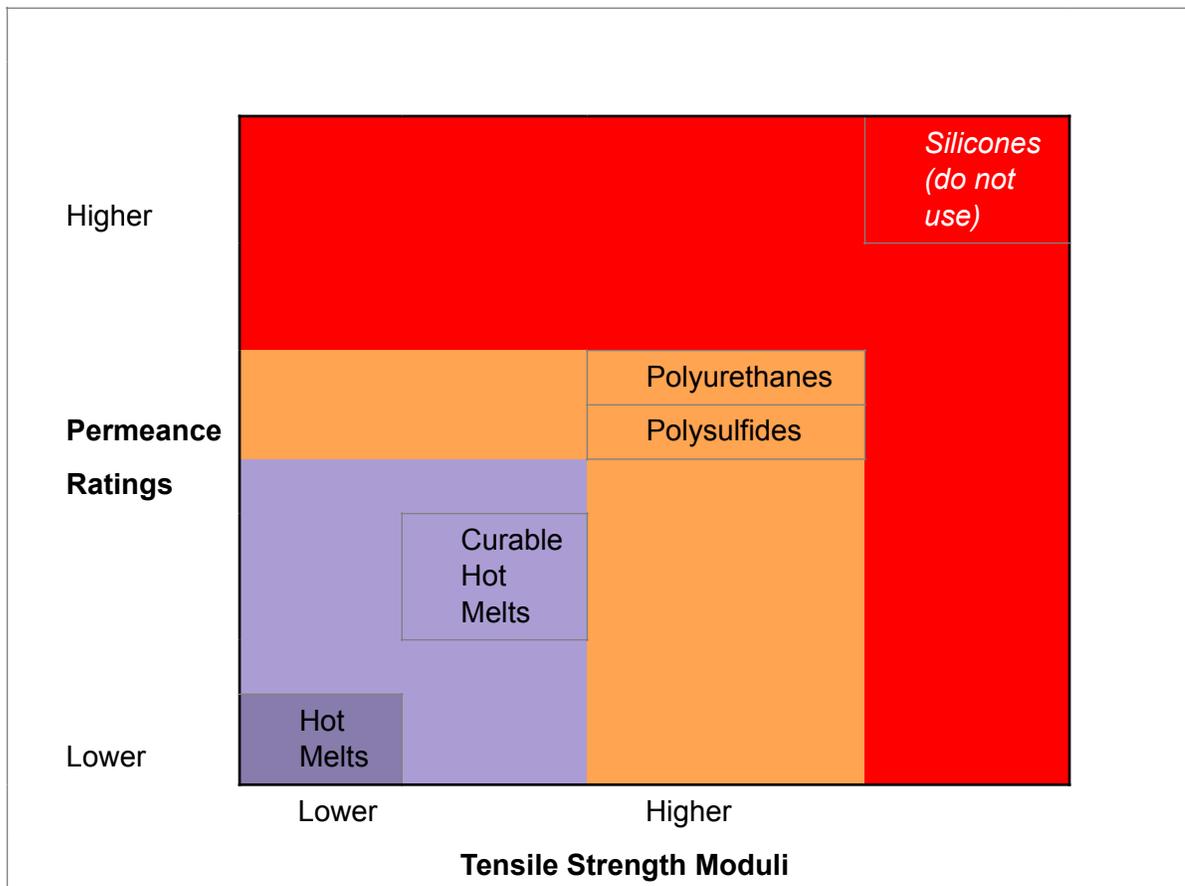


Technical Bulletin IG 1.2

Listed Secondary Sealants for use over EnerEDGE® Spacer

In general, the applied secondary sealant has at least three major functions that should be considered when selecting a sealant type by polymer family; these functions are as follows:

1. Create a waterproofing barrier for the IG seal to resist contact with unplanned liquid water or waterborne contaminants.
2. Slow the diffusion rate of moisture in and fill-gas out across the secondary sealant depth.
 - a. Sealants with very low permeance ratings should be applied with 3/16" (4.8 mm) as the minimum recommended sealant depth.
 - b. Sealants with permeance ratings above $\sim 3\text{g}/\text{m}^2\cdot 24\text{ hr}$ generally demand a thicker inset (at or above 1/4" (6.4 mm) for the applied sealant depth), given higher gas diffusion rates, and may not in economical depths provide the resistance to diffusion as do those well below $3\text{g}/\text{m}^2\cdot 24\text{ hr}$.
3. Provide additional structure to the desiccated foam spacer/PSA/sealant system to resist compression, tension and shear forces that act on the IGU.
 - a. The last two functions of slowing diffusion through low permeability and augmenting the structure through sealant properties can be related and loosely generalized in the graphic below:



LISTED SECONDARY SEALANTS

Determine which perimeter secondary sealants best suit your IG design and IG processing requirements:

- ◆ Obtain the sealant manufacturer's data sheets of candidate sealants under consideration.
- ◆ Verify IG design parameters intended with the sealant manufacturers technical resources.
- ◆ Validate through your normal certification testing cycle.
- ◆ Sealants certified in parallel use with this class of desiccated cellular spacers:

■ Thermoplastic Hot Melts:

- ◆ **Tremco® EnerSEAL™ 332 Hot Melt Butyl**
- ◆ Kommerling/Royal 2000, 3070HS & Kodimelt-IG
- ◆ Bostik Edgestik™ 5000 & 5192G/5197B
- ◆ CR Laurence CRL Hot Melt Butyl
- ◆ Delchem D-130 Hot Melt Butyl
- ◆ Fenzi NA Hotver 2000
- ◆ HB Fuller Window HL-5130, 5140, 5145 & 5147; also HM 1081/1081A & 1191
- ◆ Quanex IG Edgetherm THM 3000, 3100 & 3500

■ Thermosetting/Curable Hot Melts:

- ◆ Bostik 9190 (reactive urethane single component)
- ◆ Delchem D2000 (reactive hot melt butyl)
- ◆ HB Fuller Window HL-5153 & 5160C (reactive hot melts)

■ Plural-component Polysulfides:

- ◆ Kommerling/Royal GD116 & GD116NA
- ◆ Delchem D-80
- ◆ Fenzi NA Thiover®

■ Plural-component Polyurethanes:

- ◆ Kommerling/Royal GD677NA
- ◆ Bostik Edgestik™ 3190
- ◆ Delchem D-90

■ Silicones and Other Incompatible Sealants:

- ◆ **DO NOT USE:** All Silicones, NEDEX PS 998

Summarizing applied sealant selection, specifying a sealant with a low moisture vapor transmission rate, to be applied reliably and with sufficient depth to resist excessive elongation is our recommendation, and is the responsibility of the IGU fabricator.

Please contact Tremco Technical Service at 866-209-2404 with any questions regarding this bulletin.

