



SEALANTS: THE LOWEST COST, HIGHEST RISK PRODUCT IN GLAZING

KNOW YOUR PRODUCTS

ACRYLICS:

- Paintable
- Low Cost
- Poor weather resistance
- Shrinkage
- Poor dynamic movement capabilities
- Used mostly indoors

POLYSULFIDES:

- Paintable
- Good adhesion
- Chemical resistant
- Good weather resistance
- Low tear strength
- May require primer
- Limited temperature range

POLYURETHANES:

- Paintable
- Excellent adhesion
- Good weather resistance
- Chemical resistant
- Good mechanical properties
- May require primer
- Lower UV resistance
- Slower cure for 1-C products

SILICONES:

- Excellent UV resistance
- Good adhesion
- Mold resistant
- Good temperature range
- Easy to repair
- Not paintable
- Fast skinning-slow cure
- Compatibility issues with paints and other sealants

A SET OF GUIDELINES TO PREVENT EXPENSIVE REWORK

- It all began in the late 1700's with the introduction of caulks made from linseed oil and chalk.
- The early 1960's saw the introduction of the first truly elastic sealant type: POLYSULFIDE
- Soon after, silicones were introduced, followed in the 1970's with polyurethanes.
- Sealants represent about a 4% share in total commercial and residential glazing revenues. This equates to over \$395 million annually.
- The most common reason for rework is resealing window and door systems, which costs over ten times more than the original billed amount. *KEY: DO IT RIGHT THE FIRST TIME!*

PART ONE - USE THE RIGHT PRODUCT: SEE SIDEBAR

PART TWO - JOINT PREPARATION: Remove loose debris from surface. Then, use approved solvent to remove contaminants. Dry all surfaces prior to proceeding ("Two Cloth" cleaning method). Know your substrate types; some may require special cleaners or primers.

PART THREE - JOINT CONFIGURATION AND SEALANT APPLICATION: Use closed cell backer rod that is 25% larger than joint width to control depth of sealant and prevent 3-sided bonding. Tape all joints. Make sure to push sealant into joint with the caulking gun, running the bead at about a 30 degree angle. Tool the filled joint, leaving a concave surface, making sure to eliminate voids. This finished appearance provides best for possible thermal expansion and contraction. Sealant depth should be between 1/4" and 1/2". After tooling, remove tape and conduct general clean up, making sure not to contact the new sealed joint with any solvent.

PART FOUR - CONCLUDING RECOMMENDATIONS: Attain training and certification from your sealant manufacturer. Conduct job site pull-tail adhesion testing in all commercial applications prior to completing weather sealing. Do pay attention to weather conditions as temperature and humidity levels have an affect on cure rates and application properties of sealants. Always follow the "written word" of instructions provided through product data sheets (PDS), Safety Data Sheet (SDS) and Flat Glass Glaziers Manual documents.