



PRODUCT DATA

581

PREFORMED BUTYL TAPE / BEADS

DESCRIPTION:

581 is a crosslinked, butyl sealant with outstanding low temperature properties, excellent resilience enabling joint movement of $\pm 25\%$ at high and low temperatures and excellent cold flow resistance up to 160°F. 581 can also be supplied with a foil constraining layer giving it excellent noise and vibration damping properties. It is manufactured in convenient ready-to-use tapes, pads and beads. This material is soft, pliable and easily worked by hand. 581 will adhere instantly to almost any dry surface without being cleaned but should be tested for each individual application. 581 is designed to yield a 100% cohesive failure. The adhesive and tack properties of 581 will not transfer to the hand.

Because of its excellent adhesion to most materials, high resistance to chemical attack, resiliency and clean working properties, 581 may be used in almost any sealing application. The packaged product has excellent cold flow properties enabling application at low temperatures. Examples of possible applications include:

1. Sealing various types of metal lap joints in the metal building industry.
2. Sealing windows, panels and mullions in curtain wall and commercial building construction.
3. Plate glass bedding.
4. As a freeze – thaw stable material in the refrigeration industry.
5. Foil constrained patches can be used to reduce or eliminate vibration, rattling or other noises in HVAC units, ductwork, motors and transportation equipment.
6. Waterproof seals between concrete and metal manhole flanges.

581 is chemically inert and non-toxic. It is non-corrosive to paint, metal, aluminum, and plastic and will not swell rubber.

PROPERTIES:

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| Color (ASTM D-1729): | 581.11 – Black 581.12 – Light Gray 581.2 – White |
| Appearance (Visual): | Smooth, uniform consistency |
| Odor (ASTM D-1833): | None |
| Service Temperature: | -70°F to 220°F |
| Specific Gravity (ASTM D71): | 1.20 – 1.28 g/cm ³ |
| Weight per Gallon (ASTM D-71): | 10.3 \pm 0.5 pounds/gallon |
| Tensile Strength (ASTM C-907): | 20 psi (typical) with a cohesive failure. |

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| Paper Release: | Excellent at room temperature and after conditioning at 158°F for 72-hours. |
| Cone Penetration (ASTM D-217): | |
| @ 0°F | ≥ 50 dmm |
| @ 75°F | ≤ 120 dmm |
| @ 120°F | ≤ 145 dmm |
| Cold Flow (TP-010): | Maximum ¾-inch maximum sag at the top of the roll and no sealant separation on the bottom half of the roll after 48-hours in a vertical position. |
| Elastic Recovery (TP-011): | > 70% elastic recovery |
| Elongation and Webbing (TP-012): | |
| @ 77°F | 900% elongation (typical) without water leaks. |
| @ 32°F | 450% elongation (typical) without water leaks. |
| Staining (ASTM D925): | Method A – No stain near or under the location of the sealant bead, no change in color of the painted metal after 168 hrs. Method B – No migration stain, flow or skinning. |
| Corrosive Effects (TP-008): | No evidence of pitting or corrosion of galvanized steel, aluminum-zinc coated steel or aluminum after immersion in water at 160°F for 168-hours. |
| Copper Staining (TP-009): | No evidence of any darkening, etching or salt deposits on copper after 7-days storage of polished copper in the sealant at 158°F. |
| Percent Solids (ASTM C-771): | 99% by weight |
| Weatherability (ASTM D-750): | No apparent change of physical properties after 1000-hrs QUV exposure. Slight discoloration. |
| Flexibility (ASTM C-765): | Passes 3/8-inch mandrel bend @ -70°F |
| Heat Stability – 6-months @ 180°F | No hardening, crusting or breakdown of material. No surface crazing after bending over ¼-inch mandrel when cooled to 75°F. |
| Freeze – Thaw Stability: | 100,000+ cycles of 3-minutes @ -10°F + 2-minutes @ 80°F. |
| Waterhead Test (MBMA – Ice Damming test): | Passes 5-inch simulated waterhead test. |
| Shelf Life: | 12-months in sealed carton at ambient temperature. |

REGULATIONS and SPECIFICATIONS:

Federal Specification: TT-C-1796A, Type II, Class B (supercedes MIL-C-1896B).

FDA Regulation: Meets FDA Regulation, CFR Title 21, food additives, sub-paragraph 175.105 being composed of ingredients acceptable for packing and transporting food.

NAAMM: Meets standard SS-1C-68.

USDA: Is acceptable to the U.S. Department of Agriculture for use in meat and poultry processing areas under federal inspection.

For technical assistance, customer service and general information please call:

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