



PRODUCT DATA

581.12

PREFORMED BUTYL TAPE / BEADS

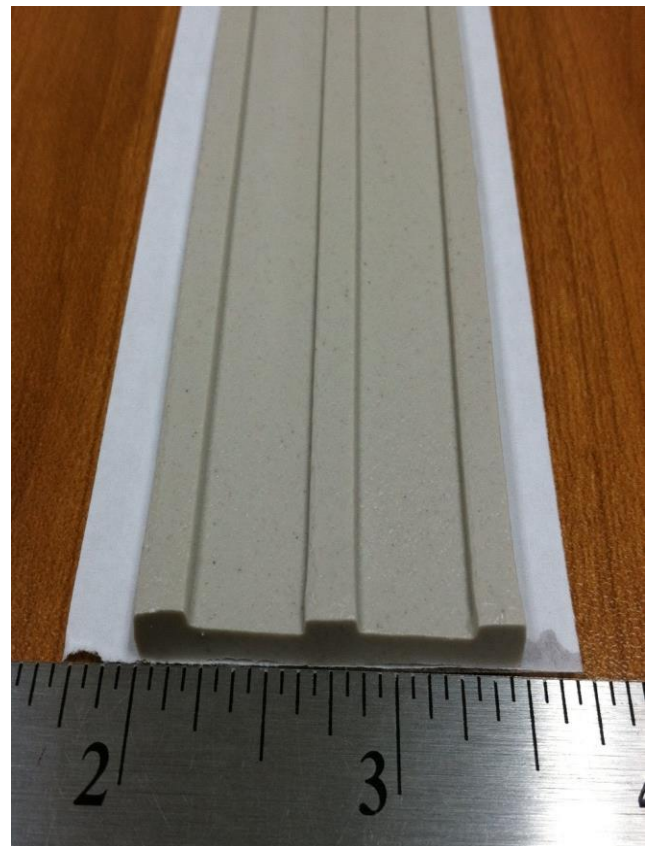
DESCRIPTION

581.12 is a butyl sealant formulated to have outstanding low temperature properties, good adhesion and excellent resilience. These properties enable joint movement of $\pm 25\%$ at high and low temperatures and excellent cold flow resistance up to 160°F. This material is soft, pliable and easily worked by hand. 581.12 will adhere instantly to almost any dry surface without being cleaned but should be tested for each individual application. 581.12 is designed to yield a 100% cohesive failure. The adhesive and tack properties of 581.12 will not transfer to the hand.

Because of its excellent adhesion to most materials, high resistance to chemical attack, resiliency and clean working properties, 581.12 may be used in almost any sealing application. It has excellent cold properties enabling application at low temperatures. Application examples include:

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

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



It is available in convenient ready-to-use tapes or beads. It can also be supplied with a foil constraining layer which gives it excellent noise and vibration damping properties.

PHYSICAL PROPERTIES

| Property | Test Method | Typical Values |
|--|---|--|
| Color | ASTM D1729 | Off white to light gray |
| Odor | | None |
| Application Temperature | | 40°F to 120°F (4°C to 49°C) |
| Service Temperature | | -70°F to 220°F (-57°C to 104°C) |
| Cone Penetration, 300-g | ASTM D217 | @ 0°F ≥ 50 dmm @ 77°F ≤ 120 dmm @ 120°F ≤ 135 dmm |
| % Solids | ASTM C771 | >99% by weight |
| Specific Gravity | ASTM D297 | 1.25 ± 0.05 g/cm ³ |
| Weight per Gallon | | 10.4 ± 0.5 pounds per gallon |
| Tensile Strength | ASTM C907 | 24 psi with cohesive failure |
| 180-degree Peel Strength | ASTM D903 | Polypropylene: 5.1 pounds/inch |
| Flexibility | ASTM C765 | Passes 3/8-inch mandrel bend at -70°F |
| Elongation and Webbing | TP-012 | 450% @ 32°F without water leaks 900% @ 77°F without water leaks |
| Staining | ASTM D925, Method A – 7-days @ 175°F | No contact stain. |
| | ASTM D925, Method B – 7-days UVA-340 sunlamp @ 140°F | No migration stain. |
| Corrosive Effects | TP-008 | No evidence of pitting or corrosion of aluminum or galvanized steel after 7-days aging of the sealant on metal in water @ 100°F. |
| 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 @ 158°F. |
| Weatherability | ASTM D750 | No apparent change of physical properties after 1000-hours QUV exposure. Slight discoloration. |
| Discoloration from Ultraviolet Light Exposure | ASTM D1148, 2000-hrs UVA-340 | No apparent change. |
| Paper Release | TP-013, Method B | Release paper removes easily and cleanly at temperatures between 0°F and 158°F. |
| Dimensional Stability (Cold Flow) | TP-010 | Roll of sealer will not sag more than 3/4-inch when hung vertically for 48-hours. |
| Elastic Recovery | TP-011 | >70% |
| Heat Stability | 6-months @ 180°F | No hardening, crusting or breakdown of material. No surface crazing after bending over a 1/4-inch mandrel after cooling to room temperature. |
| Freeze-Thaw Stability | 3-minutes @ -10°F + 2-minutes @ 80°F | Retains properties after 100,000 freeze-thaw cycles. |
| Static Water Head Test | MBMA – Ice Damming Test | Passes 5-inch simulated water head test. |
| Shelf Life | | Minimum 1-year when stored in the original container at normal warehouse temperatures. |

REGULATIONS and SPECIFICATIONS

| | |
|------------------------|---|
| Department of Defense: | Meets UFC 3-110-03, Section 5-3.3.3 Seam Sealant requirements. |
| Federal Specification: | TT-C-1796A, Type II, Class B. |
| FDA Regulation: | Meets U.S. Food and Drug Administration (FDA) regulation 21 CFR 175.105 – Indirect food additives: Adhesives and components of coatings. For substances that may come into contact with food as part of packaging or processing equipment, but are not intended to be added directly to food. |
| NAAMM: | Meets Standard SS-1C-68. |
| LEED: | Conforms to Leadership in Energy and Environmental Design (LEED) for New Construction Version 2.2, Indoor Environment material: Section 4.1, Low Emitting Materials: Adhesive & Sealants (SCAQMD) Rule # 1168, VOC limits. |
| USDA: | Is acceptable to the U. S. Department of Agriculture for use in meat and poultry processing areas under Federal Inspection. |

deVan Sealants, Inc.

6301 Prescott Avenue · P.O. Box 470375

St. Louis, MO 63147

(314) 383-1941 · Fax (314) 383-6491

www.devansealants.com

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