



PRODUCT DATA

589

Re-EXTRUDABLE BUTYL SEALANT TAPE

DESCRIPTION:

589 is a sealant compound designed for use in window and door manufacturing. Due to its crosslinked butyl memory, it will pull back to size if stretched during processing. 589 is soft, resilient, pliable and easily worked by hand; yet adheres instantly to most commercial surfaces including PVC, polyethylene, polyester, glass, aluminum and wood.

Because of its excellent adhesion to most materials, high resistance to chemical attack, resiliency, creep resistance and clean working properties, 589 may be used in almost any sealing application including:

- In window manufacturing where a re-extrudable sealant is desired for extruding to size or robotic sealant injection is needed in automated sealant operations.
- Window and door back bedding applications where cutting and removal of excess material is important.
- Sealing windows, panels and mullions in curtain wall and commercial building construction.
- Sealing of shower doors and joints between metal frame and tile walls.
- Wherever a freeze thaw material is required in refrigeration applications.
- Sealing metal lap joints.

589 is formulated to yield 100% cohesive failure in both wet and dry conditions. It is chemically inert, non-corrosive to paint, metals and plastic. It will not swell rubber. 589 will not flow, sag or pump from joint due to thermal expansion and contraction.

589.12 is available in rope form on spools for re-extruding to size on manufacturing lines. Both 589.12 and 589.2 are available in convenient, ready-to-use tape or bead form in rolls or cut-to-length flat packs. 589.12 and 589.2 are also available as die-cut parts made to customer specification.

SURFACE PREPARATION and APPLICATION:

Surfaces to which 589.12 is to be applied need not be completely clean. In most instances, the aggressive adhesion of 589.12 will accumulate over time. Any excess squeeze-out occurring during processing can easily be cut-off with minimum elongation or stretching. Customer testing is recommended to ensure the suitability for each application.

Sealant squeeze out is a major concern when large lites are used. Lites greater than 100 united inches (length in inches plus width) require a continuous shim or rod in the center of the tape. The shim serves as a spacer to keep the glass from contacting the rabbit during periods of deflection. The rabbit surface must be serrated or other effective measures found, to retain the shim during thermal expansion and contraction.

PHYSICAL PROPERTIES:

Property	Test Method	Typical Values
Color	ASTM D1729	589.12: Gray 589.2: White
Odor		None
Service Temperature		-40°F to 215°F
Cone Penetration, 300 g.	ASTM D217	70 – 90 dmm
% Solids	ASTM C771	99.5% by weight
Specific Gravity	ASTM D297	1.37 ± 0.05 g/cm ³
Weight per Gallon		11.4 ± 0.5 pounds per gallon
Tensile Strength	ASTM C907	26 psi
Tensile Modulus	TP-025, Wood / sealant / glass	Maximum strength: 34 psi @ 200% elongation: 23 psi @ 400% elongation: 6 psi @ 600% elongation: 4 psi
180-degree Peel Strength	ASTM D903, Test condition 168-hours @ RT	Substrate: Peel strength and failure mode Aluminum: 21 lbs/inch, cohesive failure Glass: 10 lbs/inch, cohesive failure PVC: 10 lbs/inch, cohesive failure Wood: 13 lbs/inch, cohesive failure
	1000-hours @ 160°F	Glass: 7 lbs/inch, cohesive failure Wood: 6 lbs/inch, cohesive failure
	1000-hours UV exposure	Glass: 6 lbs/inch, cohesive failure
	168-hours water immersion @ RT	Aluminum: 22 lbs/inch, cohesive failure Glass: 12 lbs/inch, cohesive failure PVC: 14 lbs/inch, cohesive failure Wood: 14 lbs/inch, cohesive failure
	672-hours water immersion @ RT	Glass: 12 lbs/inch, cohesive failure Wood: 14 lbs/inch, cohesive failure
Flexibility	ASTM C765	Passes 1-inch mandrel bend at -20°F
Elongation	ASTM C907	>1800%
Elongation & Webbing	TP-012	>4800%
Freeze-Thaw Stability	100,000+ cycles of 6-minutes @ -10°F + 2-minutes @ 80°F	Pass
Creep	TP-022, 24-hrs @ 180°F	35% maximum
Weatherability	ASTM D750	No significant change in tensile yield or elongation after 2000-hours exposure.
Discoloration from Ultraviolet Light Exposure	ASTM D1148, 1000-hrs UVA-340	No apparent change.
Hardness – Shore OO	ASTM C661	70
Compressibility		Easily compressible @ 40°F
Shelf Life		Minimum 1-year when stored in the original container at normal warehouse conditions.

REGULATIONS and SPECIFICATIONS:

AAMA: Meets the requirements of 802.3, Type II and 804.3 of the American Architectural Manufacturers Association.

Federal Specification: Meets the requirements of TT-S-00230C, Type II, Class B, providing for 25% maximum joint movement.

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