



PRODUCT DATA

281C.12

PUMPABLE, BUTYL RUBBER SEALANT

DESCRIPTION

281C.12 is a pump grade, butyl sealant. It is formulated to be a non-drying, permanently flexible material for sealing rigid joints and expansion joints between all combinations of wood, glass, metal and masonry. 281C.12 contains small, plastic, spacer cubes which prevent sealant from squeezing out of the joint. When bonded to clean surfaces, adhesion is normally 100% cohesive failure. No primers are required for application. It can be painted over and has no detrimental effect on wood, glass or metals.

281C.12 is available in 10.3 fluid ounce cartridges.

APPLICATION

Apply with a caulking gun at temperatures between 40°F and 150°F. Cracks deeper than ½-inch should be bottom filled with a foam backer rod prior to sealant application.



PROPERTIES

Property	Test Method	Typical Values
Color	ASTM D1729	Off-white to light gray
Odor		Mild solvent odor when wet. None when dry.
Service Temperature		-60°F to 180°F
% Solids	ASTM C771	86 ± 3% by weight 76 ± 3% by volume (192 g VOC/liter)
% Shrinkage		~24% by volume
Specific Gravity	ASTM D297	1.41 ± 0.05 g/cm ³
Weight per Gallon		11.7 ± 0.5 pounds per gallon
Flexibility	ASTM C765	Passes a ¼-inch mandrel bend @ 0°F
% Elongation	ASTM C907	100% @ 77°F 55% @ 0°F
Slump	ASTM D2202, 30-minutes @ 158°F	0.00-inch typical, 0.30-inch maximum

Property	Test Method	Typical Values
Extrudability	Instron 5500R, Load rate of 3-inches/min	≤65 pounds
Freeze-Thaw Stability	50,000+ cycles of 3-minutes @ -10°F + 2-minutes @ 80°F	Pass
Weatherability	ASTM D750, 1000-hours QUV exposure	No apparent change of physical properties.
Discoloration from Ultraviolet Light Exposure	ASTM D1148, 2000-hrs UVA-340 exposure	No apparent change.
Exterior Exposure	1-year Florida exposure on a 45° south facing rack.	No evidence of pitting or corrosion of aluminum or galvanized steel where covered by a bead of sealant. No evidence of sealer deterioration.
Water Resistance	2-weeks water immersion	No effect
Staining	ASTM D925, Method A	No staining of painted metal.
	ASTM D925, Method B	No migration stain, flow, or skinning.
Tack-free Time	ASTM C679	Relatively tack-free in 24-hours. Will remain slightly tacky indefinitely.
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.
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.
Shelf Life		1-year when stored in the original container at normal warehouse temperatures.

REGULATIONS AND SPECIFICATIONS

ASTM E1646:	Meets the requirements of Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference.
ASTM E1680:	Meets the requirements for Air Leakage Through Exterior Metal Roof Panel Systems.
ASTM E2140:	Meets the requirements of Water Penetration of Metal Roof Panel Systems by Static Water Pressure Head.
Department of Defense:	Meets UFC 3-110-03, Section 5-3.3.3 Seam Sealant requirements.
Federal Specification:	TT-C-1796A, Type I, Class A

LEED: Conforms to Leadership in Energy and Environmental Design 2009 for New Construction, Indoor Environmental Quality: Section 4.1, Low-Emitting Materials: Adhesive & Sealants (SCAQMD) Rule # 1168, VOC limits.

NAAMM: Meets Standard SS-1a-68.

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

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