

## PRODUCT DATA

# **561.12** BUTYL SEALANT FOR METAL GRAIN BIN AND PRE-ENGINEERED METAL BUILDING INDUSTRIES

### DESCRIPTION

561.12 is formulated with high performance butyl elastomers to meet pre-engineered grain bin and metal building requirements. It is soft, resilient and easily worked by hand; yet it adheres instantly to almost any normal commercial surface without being cleaned. 561.12 has excellent weathering characteristics while retaining adhesion and elasticity in both hot and cold environments.

561.12 has outstanding webbing and elongation properties along with excellent adhesion to glass, plastic, polyethylene, galvanized, aluminum and aluminum-zinc coated steel. 561.12 also has excellent adhesion to siliconized polyester, polyurethane and polyvinyl fluoride painted substrates. It is designed to seal exposed joints against infiltration of air, dust, water and pollutants.



This material is manufactured in convenient ready-to-use tapes, beads and pads of various sizes.

#### **PROPERTIES**

Property	Test Method	Typical Values
Color	ASTM D1729	Gray
Odor		None. Will not contaminate sweet butter.
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 ≥ 42 dmm
		@ 77°F ≤ 110 dmm
		@ 120°F ≤ 145 dmm
% Solids	ASTM C771	> 99% by weight
Specific Gravity	ASTM D297	1.75 ± 0.05 g/cm <sup>3</sup>
Weight per Gallon		14.6 ± 0.5 pounds per gallon
Tensile Yield	ASTM C907	15 psi with cohesive failure
180-degree Peel Strength	ASTM D903,	
	Test condition	Substrate: Peel strength and failure mode
	1-hour dwell	Aluminum: 5.8 lbs./inch, cohesive failure
		Cold rolled steel: 6.5 lbs./inch, cohesive failure
		Galvanized steel: 6.5 lbs./inch, cohesive failure
	1000-hrs @ 158ºF	Cold rolled steel: 7.4 lbs./inch, cohesive failure
		Galvanized steel: 8.0 lbs./inch, cohesive failure
	4-week water soak	Galvanized steel: 13.5 lbs./inch, cohesive failure

Property	Test Method	Typical Values
Flexibility	ASTM C765	Passes ¾-inch mandrel bend at -70°F
Elongation and Webbing	TP-012	400% @ 32°F w/o water leaks
		1000% @ 77°F w/o water leaks
Plastic Deformation	ASTM D816	No flow or deformation of sealant after 1-hour @ 257°F.
Heat Stability	6-months @ 180°F	No hardening, crusting or softening of surface. No surface crazing after cooling to 75°F and bending over a ¼-inch mandrel.
Vehicle Bleedout	AAMA 800-08	21-days @ 77°F, no visible bleedout or migration.
	ASTM C772	14-days @ 180°F, no visible bleedout or migration.
		21-days RS type sunlamp, no visible bleedout or migration.
Staining	ASTM D925,	No staining, no significant change in sealant color or its
	Method A –	non-skinning characteristics. Will not cause crazing of
	7-days @ 175°F	plastics.
	ASTM D925,	No staining, no significant change in sealant color or its
	Method B –	non-skinning characteristics. Will not cause crazing of
	7-days RS	plastics.
	sunlamp @ 140°F	
Paintability		Paintable
Water Resistance	60-days water	Maintains adhesion to galvanized metal, aluminum-zinc
	immersion @ 120°F	coated steel and siliconized polyester painted surfaces.
Chemical Resistance		Excellent resistance to ozone, water and alcohols.
		Good resistance to weak acids and bases.
		Fair resistance to ketones.
		Poor resistance to oils, aliphatic and aromatic solvents.
Weatherability	ASTM D750	No apparent change of physical properties after
		1000-hours QUV exposure. Slight discoloration.
Discoloration from	ASTM D1148,	Slight yellowing.
Ultraviolet Light Exposure	2000-hrs UVA-340	
Paper Release	TP-013, Method B	Release paper comes off sealer easily and clean at temperatures up to 158°F.
Dimensional Stability	TP-010	Roll of sealer will not sag more than <sup>3</sup> / <sub>4</sub> -inch when hung
(Cold Flow)		vertically for 48-hours.
Shelf Life		Minimum 1-year when stored in the original container at
		normal warehouse temperatures.

### **REGULATIONS and SPECIFICATIONS:**

- Federal Specification: TT-C-1796A, Type II, Class B
- NAAMM: Meets standard SS-1C-68.
- FDA Regulation:Meets U.S. Food and Drug Administration (FDA) regulation 21 CFR 175.105 –<br/>Indirect food additives: Adhesives and components of coatings. For substances<br/>that may come into contact with food as part of packaging or processing<br/>equipment, but are not intended to be added directly to food.
- 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.

Is acceptable to the U.S. Department of Agriculture for use in meat and poultry processing areas under Federal Inspection.

## deVan Sealants, Inc.

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