

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION:

Permathane® SM5731 is a one component, medium modulus, non-corrosive silicone sealant designed to seal glazing details found in contemporary fenestration fabrication and installation. This neutral cure silicone exhibits excellent adhesion to PVC, aluminum, glass and a variety of painted surfaces without priming. It is suitable for glazing silicone bonded insulating glass units where acetoxysilicone sealant cannot be used. It has a very low odor factor, and cures to a flexible, resilient rubber when exposed to moisture in the atmosphere. The tack-free time and early strength characteristics are excellent, allowing movement of fabricated unit without bond-line failure. Installation can be performed four to six hours after fabrication at normal conditions (77°F and 50% R.H.). When used in installation perimeter joints, its rapid cure aids in resisting the harmful effects of joint movement that occur during the first day after application.

BASIC USES:

- SM5731 Silicone Sealant is designed for use as a back bedding sealant for *drop-in* glazing, and as an installation sealant for perimeter and bedding joints. Compatibility testing is mandatory where SM5731 is in direct contact with any other sealant, elastomer, thermal-break compound or architectural paint. When compatibility is verified, it can be used in details such as heel-bead, toe-bead, bedding, cap seal and hidden corner joints. In most cases, no primer (surface conditioner) is required. It is recommended that adhesion test be conducted on all surfaces prior to product acceptance. See "Pretest Adhesion" of this data sheet.

LIMITATIONS:

Not recommended for use on:

- Details subjected to continuous water submersion
- Special architectural finishes without proper testing
- Surfaces contaminated with oil, grease, wax, dust or corrosion
- Structural glazing applications
- Frost bearing surfaces or when temperature is below 40°F
- Where painting over sealant is required
- Avoid air entrapment during application
- Totally confined air-free areas

SPECIFICATION COMPLIANCE:

- AAMA 802.3 Type I, Type II
- AAMA 805.2 Group C
- AAMA 808.3
- ASTM C920
- Type S, Grade NS, Class 25
- TT-S-001543A, Class A
- TT-S-00230C, Class A

TYPICAL PROPERTIES:

Characteristic	Result	Test Method
Extrusion Rate	15+5 Sec.	ASTM D 2452 60psi, 0.014" orifice
Tensile Strength	150 psi (1.03 N/mm ²)	ASTM D 412 Method A
Modulus@ 100% Elongation	35 psi (0.24 N/mm ²)	ASTM D 412
Elongation	400% Min.	ASTM D 412
Vehicle Migration	None	AAMA 800
% Recovery	100%	ASTM D 412
C-Tear	25 psi (0.192N/mm ²)	ASTM D 624
Hardness	15 Shore A	ASTM C 661
Tack-Free Time	10 Min.	Std. Conditions*
Cure Time	10 Hours	Std. Conditions*
Weight/ gallon	8.42 lbs/ gal.	
VOC (EPA Method 24)	41.9 g/L	
Service Temperature	-60°F to 300°F (-51°C to 149°C)	
Shelf Life	SM5731 has a shelf life of 9 months when stored in original containers at 80°F (27°C) or less.	
* Standard Conditions	¼" dia. Bead at 77°F, 50% R.H.	

INSTALLATION:

Standard caulking guns or industrial pump and flow gun equipment, with a 23:1 ratio, and chop-check valve can be used successfully for compound application. Hoses from pumps or header systems and all seals/packings must be of Teflon or polypropylene. Apply to clean, dry surfaces. Optimum cleaning procedures for metal, glass or plastic surfaces should be by a solvent wipe procedure or by mechanical means. Detergent or soap and water cleaned surfaces must be thoroughly rinsed and dry. Protective films must be removed by a solvent recommended by the manufacturer of the film or by means which leave no residue. In all cases where used, solvents shall be applied with one clean cloth or lintless paper towel, and wiped clean with a second cloth or towel. Cleaning solvents should not be allowed to air dry or evaporate without wiping.

ARCHITECTURAL COATINGS, PAINTS AND PLASTICS SHOULD BE CLEANED WITH A SOLVENT APPROVED BY THE MANUFACTURER OF THAT PRODUCT.

READ ALL LABELING BEFORE USE, AND FOLLOW THE SOLVENT MANUFACTURER'S INSTRUCTIONS FOR SAFE HANDLING.

Excessive uncured material is quickly removed from fabrications with isopropyl alcohol, aromatic or ketone type solvents. The use of these solvents (or other solvents) may be hazardous to your health. KEEP FROM OPEN FLAME. Tools and application equipment may be cleaned with the same solvent.

PRETEST ADHESION:

Pretest for adhesion is intended to eliminate potential field problems by testing SM5731 with samples of fabrication materials on which it will be applied. This testing will aid in determining the proper surface preparation method and effective solvents in cleaning and whether a primer is necessary to achieve optimum adhesion.

MAINTENANCE:

No maintenance should be required. If sealant becomes damaged, replace damaged portion. Clean surfaces in damaged area, and repair with fresh SM5731 Silicone Sealant.

PRECAUTIONS:

IF THIS PRODUCT IS USED IN DIRECT CONTACT WITH ANY OTHER SEALANT, ELASTOMER, THERMAL-BREAK COMPOUND OR ARCHITECTURAL PAINT, A COMPATIBILITY TEST MUST BE CONDUCTED, BY PURCHASER OR USER, PRIOR TO ACCEPTANCE. The suitability of this product, for each intended use, must be determined by the purchaser prior to acceptance. Avoid skin and eye contact. On contact, uncured sealant could cause irritation to the skin and eyes. In case of eye contact, flush eyes with warm water for 15 minutes, call a physician. For skin contact, remove sealant with a dry cloth or paper towel and wash thoroughly with soap and water for approximately 15 minutes. If swallowed, induce vomiting, call a physician. KEEP OUT OF REACH OF CHILDREN. This product is manufactured for industrial use only. Please consult a Safety Data Sheet for further information.

EXCLUSION OF WARRANTIES:

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