TECHNICAL DATA

Permathane® SM7108

PU Mastic Gun Grade Construction Sealant

Description

Permathane® SM7108 is a one component, gun-grade, non-sag, moisture-cure polyurethane sealant designed to skin and cure rapidly. This high performance product is designed with outstanding UV resistance and long term durability. Excellent adhesion is obtained on a wide variety of materials. **Permathane® SM7108** is manufactured by Schnee-Morehead Inc.

Areas of Application

Permathane® 7108 is designed to seal construction joints details:

- Waterproof rivet seams and roof rails
- Perimeter joints around windows and doors
- Sealing vehicle bodies, cab construction, under-body compartments and roofing
- Sealing corner mouldings, fabricated roof- lap seams, bumper assemblies and body-to-cab joints in motor homes
- Sealing door hinges, skylights and portholes
- PCC holding tanks, PCC cooling tower basins
- Air-conditioning equipment, flashing and gutters
- Masonry expansion joints
- Between construction materials of dissimilar expansion coefficients

Features

- Accommodates 50% joint movement
- Permanently flexible, excellent weatherability
- Easy to gun – Easy to tool
- Cures to a tough, durable, elastic consistency with excellent cut and tear resistance
- Paintable – non-sticky after curing
- VOC Compliant
- Primerless adhesion to substrates including galvanized steel, aluminum, concrete, glass, Galvalume®, Zincalume®, Kynar 500®, wood, vinyl and fibreglass
- Wide Service Temperature: -40ºC to 93ºC
- Multiple-purpose

Last Modified May 2007

General Properties

			Test Method
Skin Time	:	2-4 hours*	
Cure Time	:	24 - 48 hours*	
Shore A Hardness	:	30 - 40	ASTM C661
Peel Adhesion	:	67 N maximum	ASTM C794
Tensile Maximum	:	2.07 N/mm^2	ASTM D412
Maximum Elongation	:	500-600%	ASTM D412
Sag	:	None	ASTM C639
Service Temperature	:	-40ºC to +93.3ºC	
Flash Point	:	+64.4ºC	ASTM D56
Water Resistance	:	Passes	AAMA 800

* Assume 6mm diameter bead / 24 Hours at 24ºC 50%RH

Specification Compliance

- TT-S-00230 C (Type II) Class A
- ASTM C 920 Type S, Grade NS, Class 25, Use-NT, A, M,G and O
- AAMA 808.3 (Exterior Sealing Compound)
- USDA acceptable for use in meat and poultry areas

Estimating Data

300ml Cartridge **Permathane® SM7108** Sealant = 4.2m (12mm x 6 mm Joint)

Pre-test for Adhesion

Due to the number and types of substrates available, pre-testing for adhesion is recommended. Testing on samples of materials to which it will be applied is intended to eliminate potential field problems and help determine proper surface preparation.

Joint Design

Recommended joint width is 6mm to 25mm. Sealant depth should not exceed joint width, and in case, should depth be greater than 12mm or less than 6mm. Use of closed cell polyethylene backer-rod approximately 25% larger than the width of the joint is recommended for deep joints. A bond-breaker film should be used in shallow joints to prevent three-sided adhesion. Do not puncture or prime the backer-rod. Please consult the ITW Polymers & Fluids Technical Department for further details on sealant engineering.

Application directions

Surface Preparation

With correct sealant selection and joint design, adhesion at the joint interface becomes the major critical factor. Surfaces must be clean, dry and free of oil or grease. Concrete and masonry surfaces must be free of foreign material, contaminants, water repellents, form oils and laitance. Stone surfaces must be cohesively sound and free of contaminants. Granite, limestone, marble and sandstone must be pre-tested for adhesion prior to sealant installation.

Mill finish aluminum may contain an invisible oil film or oxide. Clean with a good degreasing solvent such as xylene or toluene. Many high-performance coatings or unusual surface treatments may require abrasion of the surface with steel wool or fine emery paper during preparation. Damaged joints should be saw cut or repaired to give a clean bonding edge.

Surface preparation guidelines cannot cover all site or field contingencies and it is always recommended that an on-the-spot adhesion test be performed as part of the Standard Quality Assurance audit for the project.

Priming

It is expected that **Permathane® SM7108** will adhere and perform in uncontaminated joints with most common substrates, without the use of a primer. Joints subjected to intermittent immersion or vertical joints subjected to rain should perform without the need of a primer.

Priming of masonry or other porous joints (with **Epirez® PU Primer)** is recommended only if the joints will be subjected to prolonged or continuous immersion.

Application

Insert cartridge in sealant gun, cut nozzle and dispense.

Application Limitations

Permathane® SM7108 must not be applied to frost-bearing surfaces or if temperature will be below freezing within 24 hours. Tooling techniques using solvents or soapy solutions are not recommended. All surfaces must be evaluated for adhesion prior to product acceptance. The suitability of this product, for each intended use, must be determined by the buyer prior to acceptance.

Not recommended for:
Unprimed masonry joints that will be subjected to continuous water immersion. Joints that are contaminated with grease, wax, corrosion, bitumen or cement laitance. Horizontal joints in floors or desks where physical abuse is encountered. Special architectural finishes without proper testing.

Tooling/Finishing

Tooling of freshly applied sealant should be done in one continuous stroke. Tool the sealant with adequate pressure to spread the sealant against the back-up material and onto the joint surfaces. Excess sealant should be dry-wiped from all surfaces while still uncured. If joint surfaces have been masked, remove masking tape immediately after tooling. Cured sealant is very difficult to remove.

Cleaning

Clean tools and equipment before hardening commences using **Epirez® Clean Up Solvent**. Do not use for cleaning hands or mixing with product.

Packaging

Permathane® SM7108 is packed in 300ml cartridges.

Ordering Information:

Permathane® SM7108 300ml	#E492073
PU Primer 500ml	#E492077

Safety Precautions

On contact, uncured sealant causes irritation. Avoid contact with eyes and skin. Contact lens wearers should take appropriate precautions. In case of contact, flush eyes with water. Seek medical advice. Remove from skin with dry cloth or paper towel. Keep out of reach of children.

TDG Code: Permathane® SM7108 - Not Classified

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Note

If this product is used in direct contact or in close proximity with any other sealant or elastomer, a compatibility test must be conducted by the purchaser or user prior to use. When applied in close proximity, neutral cure silicones will prevent **Permathane® SM7108** from curing. There will be no problem if either sealant is applied and allowed to cure prior to the application of the other. Use caution if applying the silicone first since **Permathane® SM7108** will not adhere to silicone or its residue.

The figures quoted for work time and cure time are not definitive. They are dependent on job site conditions and will vary accordingly. In all cases we endeavour to provide typical figures for use as a guide.

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