

Permathane[®] SM7110 Fast Cure Polyurethane Adhesive/Sealant

PRODUCT DESCRIPTION:

Permathane[®] SM7110 is a one component, non-sag, fast curing polyurethane adhesive/sealant. SM7110 provides an elastic seal and rapid tough bonds. This high performance product is designed with outstanding UV resistance and long term durability.

ADVANTAGES:

- Fast strength development
- High adhesion and bond strength
- Excellent adhesion without primer to most substrates including prepainted coils, galvanized steel, aluminum, concrete, glass, Galvalume[®], Zinalume[®], Kynar 500[®], wood, Vinyl and fiberglass
- Cures to a tough, permanently flexible, elastic seal
- Accommodates +/- 25% joint movement
- Excellent tear resistance
- Fast skinning – non-sticky after cure
- Paintable
- Low VOC

TYPICAL USES:

- Waterproofs rivet seams, roof nails and fabricated roof-overlap seams
- Sealing interior & exterior joints of trailers, trucks, railcars, busses, containers, van bodies, utilities, subways, horse trailers, campers and emergency vehicles
- Bonding or sealing side posts and sidewalls
- Sealing compartments and roofing
- Sealing front and rear spoilers, auto trim, molding, body seams and weld joints
- Sealing corner moldings, bumper assemblies and body-to-cab joints in mini-motor homes
- Perimeter joints around windows and doors
- Sealing door hinges, air conditioners, and skylight portholes
- Air conditioning equipment and gutters

SPECIFICATION COMPLIANCE:

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| ASTM C 920, Type S Grade NS, Class 25, Use NT, A, M, G and O Federal Specification TT-S-00230 C (Type II) Class A Commercial Item Specification A-A-1556A (Type II) Class A AAMA 808.3 USDA Acceptable |
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PROPERTIES:

| <i>Property</i> | <i>Typical Value</i> | <i>Test Method</i> |
|--|---|--------------------|
| Tensile Strength | 265 PSI (1.7N/mm ²) | ASTM D412 |
| Elongation | 650% | ASTM D412 |
| Peel Adhesion | 20 pli (135N) | ASTM C794 |
| Recovery | 96% min. | ASTM D412 |
| Modulus of Elasticity @25% @50% @100% | 50 PSI (0.34N/mm ²) 75 PSI (0.52N/mm ²) 100 PSI (0.69N/mm ²) | ASTM D412 |
| Shore A Hardness | 35-40 | ASTM C661 |
| Total Joint Movement | ±25% | ASTM C719 |
| Service Temperature | -40°F to 200°F | |
| Tack Free Time | 90 Minutes | |
| Cure Time | 24 Hours | |
| Note: Skin and cure times are dependent on temperature, humidity and porosity of the substrates. The times listed above are based on a 1/4" bead at 23°C, 50% RH. Lower humidity, cooler temperatures and non porous substrates will lengthen these times. | | |

PRETEST FOR ADHESION:

Due to the vast number of materials, coatings and treatments, pretesting for adhesion should be conducted. Testing SM7110 on samples of substrates to which it will be applied will help eliminate potential field adhesion problems. This testing will aid in determining the proper surface preparation method.

SUFACE PRERERATION:

- Surfaces must be clean, dry and free of oil or grease
- Mill finish aluminum may contain an invisible oil film or oxide. Clean with a good degreasing solvent such as xylene. DO NOT USE ALCOHOLS.
- It is expected that SM7110 will adhere and perform 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.

JOINT DESIGN:

- Bead size for bonding applications is typically 1/8" to 1/4" in diameter prior to assembly based on the final width and thickness of the desired bond line (thicker gaps require more sealant).
- Fillet beads should contact each surface 1/4" minimum.
- Butt joint width is 1/4" to 1". Sealant depth should not exceed joint width and in no case

should depth be greater than 1/2" or less than 1/4". To control sealant depth use closed cell polyethylene backer rod that is 25% larger than the joint width.

APPLICATION:

- Do not open until ready to use. Cut nozzle to desired bead size. Completely puncture seal in base of spout.
- Tooling should be done in one continuous stroke. Tool the sealant with adequate pressure to spread the sealant against the joint surface.
- Excess sealant should be wiped from all surfaces while still uncured. The use of xylene, toluene, or methyl ethyl ketone will aid in removal.
- Tools and application equipment may also be cleaned with the same solvents. Note: Follow all manufactures recommendations and instructions for safe handling.
- If joint surfaces have been masked, remove masking tape immediately after tooling.
- Cured sealant must be removed mechanically.

SHELF LIFE:

SM7110 will exhibit a 12 month shelf life from the date of manufacture when stored at or below 80°F.

PRECAUTIONS:

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 purchaser or user prior to acceptance.

When applied in close proximity, neutral cure silicone sealants will prevent SM7110 from curing. There will be no problem if either sealant is applied and allowed to fully cure prior to application of each other. Use caution if applying the silicone first since SM7110 will not adhere to silicone or its residue.

FIRST AID:

KEEP OUT OF REACH OF CHILDREN. 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 paper towel. If swallowed, do not induce vomiting, call a physician. This product is manufactured for professional use only.

VOC: 46 g/l

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Zincalume is a registered trademark of BHP Steel.

Kynar 500 is a registered trademark of Atofina Chemicals Inc.

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