Flexiprene® PSI-952 One-part Self-leveling Urethane Sealant

Product description

Flexiprene PSI-952 is a one-part, self-leveling, moisture-curing, polyurethane joint sealant formulated to form a permanent watertight seal in both interior and exterior joints in horizontal surfaces. It contains no solvents. Flexiprene PSI-952 cures to a flexible rubber with extraordinary adhesion and cohesion, capable of compensating for joint movement of ±25% of the original joint width. It is capable of supporting foot traffic as well as light, vehicular traffic.

Basic uses

Flexiprene PSI-952 was specifically developed for sealing horizontal joints of dissimilar porosities, coefficients of expansion and surface textures including joints in plazas, malls, parking decks, pavements, driveways, factory and institutional joints. It has proven successful as a traffic loop sealant.

Benefits

- Fast curing.
- Good for slopes up to 3%.
- Excellent resistance to weathering.
- High abrasion resistance and tear strength.
- Good adhesion to macadam.
- Paintable when cured.

Application limitations

- Sealant may form air bubbles or blisters when applied to porous surfaces, damp substrates or in very humid environments. Bubble formation may be minimized by priming substrate prior to sealant application.
- Not for use in joints where the movement will exceed ±25% of the original width.
- Should not be used for structural or butt glazing, nor in expansion joints less than 1/4˝ (6 mm) in width or depth.
- Not for use in direct contact with liquid asphalt.
- Product is not solvent- or fuel-resistant.

Colors

Gray. Custom colors available; minimum order may apply.

Packaging

Packaged in 30 fl. oz. (900 ml) cartridges, 10 per carton. Pail and drum packaging available.

Applicable standards

Flexiprene PSI-952 meets or exceeds the requirements of Federal Specification TT-S-00230C, Type I, Class A; ASTM C920-95, Type S, Grade P, Class 25, use T, G, M, A, and O; and Canadian Specification CAN/CGSB 19.13-M87. Flexiprene PSI-952 complies with Southern Coast Air Quality Management District SCAQMD) Rule 1168 for adhesives and sealants.

Installation

Joint design: The width of the joint should be a minimum of 4 times the calculated joint movement. The width or depth of the joint should not be less than 1/4˝ (6 mm). In joints up to 1/2˝ (12 mm) wide, the depth of the sealant should be equal to the width. In joints wider than 1/2˝ (12 mm), the depth should be maintained at 1/2˝ (12 mm). Joint width should not exceed 1˝ (25 mm).

Surface preparation: Joints to receive sealant must be sound, smooth, uniform in dimensions and free from defects and foreign materials. They must also be clean, dry, and free of frost and all contaminants, such as coatings, sealers (waterproofing), curing compounds, etc.

To test adhesion, apply a sealant bead and allow to cure thoroughly. Then pull one end of the bead to test adhesive strength. Protecting the top edges of the joints with masking tape will help make a nicer looking job.

Priming: Flexiprene PSI-952 has excellent adhesion to most common, firm, uncontaminated materials. Primer use is recommended in exterior applications for greater long-term adhesion. Priming is highly recommended for below-grade installations and for applications that are frequently wet, friable, or sandy.

For porous surfaces, PSI-591 Primer is recommended. Allow primer to dry for about 2 hours before applying sealant.

For non-porous surfaces, PSI-590 Primer is recommended. Sealant can be applied after a 15-minute drying time.

Primer should be applied only to clean, dry surfaces prior to installation of backer rod or bond breaker tape, and sealant should be kept within the confines of the joint to avoid staining adjacent surfaces. See data sheets and SDS for PSI-590 and PSI-591 Primers for more detailed information and safety precautions.

Backup material: The purpose of backup material is to regulate the depth of the joint; to provide a surface against which the sealant is compressed when tooled, thus promoting better adhesion to the side walls; and to provide a non-adhering back surface, precluding the possibility of a three-sided joint. Where backup material is not necessary or where a type is used that does not have release properties, a bond breaker tape should be used.

Closed-cell polyethylene foam backup material is recommended; do not use polystyrene-based backup material. Backup material should not be punctured, twisted or excessively stretched during installation, nor should it be compressed more than 50% of its original diameter.

Health precautions

Danger
May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Refer to Safety Data Sheet (SDS) for complete health and safety information.

Open cell backer rod is compatible with all PSI sealants as long as it remains dry.

Cleaning: Immediately remove all excess sealant and smears adjacent to joints with xylene. For equipment cleanup, use xylene or toluene. See manufacturer's SDS for handling and safety precautions.

Shelf life: Nine months from date of shipment when stored in original, unopened container in a dry area at temperatures below 80°F (27°C).

Maintenance

If the sealant is damaged and the bond is intact, cut out the damaged area and recaulk. No primer is required. If the bond has been affected, remove the old sealant, clean and prepare the joint in accordance with instructions under "Surface Preparation" and recaulk.

Technical services

PSI provides performance data, specification assistance and use evaluations.

Performance Data*

Properties	Results	Test Methods
Uncured Properties *(at 73°F/23°C and 50% RH)*		
Skin-over time	2 hours	ASTM C679
Cure time, 1/8˝ (3 mm) thickness	<24 hours	
Flow properties	Self-leveling	TT-S-00230C
Viscosity, #6 @ 10 mixed 2 minutes	45,000 cps	
VOC content	0.59 lb/gl (71 g/L)	ASTM D2369
Specific gravity	1.70 g/mL	
Cured properties below are at 14 days at 70°F (21°C) and 50% RH		
Cured Physical Properties		
Hardness, Shore A	35	ASTM C661
Tensile strength	150 psi (1.0 MPa)	ASTM D412
Elongation	500%	ASTM D412
Adhesion-in-peel, concrete and aluminum	25 pli (42 N/cm)	ASTM C794
Cured Construction Properties		
Weight loss	5% maximum	ASTM C794
Cracking and chalking after heat aging	Pass	
Durability (bond and cohesion)		ASTM C719
joint movement on mortar, aluminum and glass	±25%	
Staining	Pass	ASTM C510

** Typical properties are for information only, not for purposes of specification. The data above represents product performance in ideal laboratory conditions. Individual users' experience may vary depending on application conditions.*

Adhesion testing by PSI: This program is intended to eliminate potential field application problems by pre-testing the adhesion of PSI's construction sealants on samples of building materials submitted by the customer. The tests will aid in determining the proper surface preparation method, effective solvents for cleaning, and whether priming is necessary to achieve optimum adhesion. Following this procedure will remove many of the variables that affect field success.

Test samples should be identified as to manufacturer, origin, designed use, building project, person and firm originating the request. Appropriate sketches of drawings showing the intended use can be helpful. Contact your PSI sales representative for more information.

Jobsite testing of substrates: A field test can be performed by applying several feet of sealant to a representative joint and letting it reach full cure. Make a cut in the cured sealant across the joint the entire depth of the sealant. Make two vertical cuts several inches long, paralleling the sides of the joint as closely as possible and extending down from the cross cut. Grasp the free length of sealant and pull at a 90° angle to determine if a good bond has developed. With good adhesion, the sealant will usually tear cohesively or be difficult to remove from the surface.

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