



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 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 $\pm 25\%$ 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
- No solvents (VOC's)
- No TDI
- Good for slopes up to 3%
- Good adhesion to macadam

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.
- Do not use in joints where the movement will exceed $\pm 25\%$ of the original width.
- Should not be used for structural or butt glazing, nor in expansion joints less than 1/4" in width or depth.
- Sealant should not be in direct contact with liquid asphalt.

- Product is not solvent or fuel resistant.
- Joints to be immersed must be primed prior to sealant application.

Colors

Gray and Limestone. Custom colors available; minimum order 100 gallons.

Packaging

Packaged in 30 fl. oz. (900 ml) cartridges, 10 per carton. Also available in 2 gallon pails, 5 gallon pails, and drums on special order.

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.

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". In joints up to 1/2" wide, the depth of the sealant should be equal to the width. In joints wider than 1/2", the depth should be maintained at 1/2". Joint width should not exceed 1".

For butt joints, see PSI's Joint Design Chart for recommended joint designs for specific building materials. Lap shear joints should have a width of at least twice the anticipated movement.

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, 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. It may be prudent to use a primer on substrates such as concrete which are frequently wet, friable or sandy, and some plastics. For porous surfaces, PSI Primer 591 is recommended. The primer should be allowed to dry for about 2 hours before applying sealant. For non-porous surfaces, Primer 590 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, bond breaker tape, and sealant and should be kept within the confines of the joint to avoid staining adjacent surfaces. See data sheets and MSDS for Primers 590 and 591 for more detailed information and safety precautions.

Back-up material: The purpose of back-up 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 back-up 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 back-up material is recommended; do not use polystyrene based back-up material. Back-up material should not be punctured, twisted or excessively stretched during installation, nor should it be compressed more than 50% of its original diameter.

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 xylol. For equipment clean up,

use xylol or toluol. See manufacturer's MSDS 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).

Health precautions

- Application area should be well ventilated.
- Keep away from heat and flame.
- Do not take internally. Call a physician if swallowed.
- Avoid eye and skin contact.
- Keep out of reach of children.

For additional health and safety information, consult a Material Safety Data Sheet.

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.

Performance Data*

Properties	Results	Test Method
Uncured Properties - 73°F (23°C) & 50% RH		
Skin-over time	2 hours	ASTM C679
Cure time, 1/8 inch thickness	<24 hours	PSI 202
Flow properties	Self-leveling	TT-S-00230C
Viscosity, #6 @ 10 mixed 2 minutes	45,000 cps	
Thixo index, 2/20 rpm	4.2	
VOC content	0.1 lb/gal	ASTM D2369
Specific gravity	1.70	
Cured Physical Properties - 14 days at 70°F (21°C) & 50% RH		
Hardness, Shore A	35	ASTM C661
Tensile strength	150 psi	ASTM D412
Elongation	500%	ASTM D412
Adhesion-in-peel, concrete & aluminum	25 lb/in	ASTM C794
Cured Construction Properties - 14 days at 70°F (21°C) & 50% RH		
Weight loss	5% maximum	ASTM C794
Cracking & chalking after heat aging	Pass	
Durability (bond & cohesion)		ASTM C719
joint movement on mortar		
aluminum, glass	±25%	
Staining	Pass	ASTM C510

* Typical properties are for information only, not for purposes of specification.

Technical services

PSI provides field service, performance data, specification assistance and use evaluations.

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. They should be sent to the attention of PSI's Technical Director.

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.

Availability and cost

Polymeric Systems, Inc., is a part of Whitford Worldwide. For more information, please contact Polymeric Systems or Whitford Plastics Ltd. at:

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