



PSI-591 Primer for Porous Surfaces

Product description

PSI-591 Primer is a reactive polyurethane which promotes the adhesion of PSI polysulfide and polyurethane sealants primarily to porous substrates such as concrete. It reacts with atmospheric moisture to form a hard film with outstanding water resistance and high adhesive strength to many materials.

Basic uses

PSI-591 Primer should be used when a single-component primer is needed on porous materials such as when firming up friable or sandy concrete, or on brick and stone. It also provides water resistance when PSI urethane sealants are used on non-porous materials such as metals and plastics. However, PSI-590 non-staining primer is the first choice for these materials. For PSI urethane sealants in joints subjected to continuous water immersion, PSI Primer #67, a two-part epoxy-based material, is recommended.

Application limitations

- If sealant cannot be installed within 24 hours, reprime.
- Avoid smearing primer on exposed surfaces as it yellows on exposure to sunlight.
- Do not apply over wet or damp substrates.
- Do not apply primer to backer rod to prevent three-sided adhesion.

Packaging

Available in quart (946 ml) cans.

Application

Preparation: The surfaces to which primer is applied must be clean, dry and free of laitance, loose aggregate, oil, grease, wax, mastic compounds, waterproofing compounds, corrosion, rust and previously-applied sealants.

Application: Apply primer by brush, roller, or spray in a thin continuous film. Avoid pools, runs and drips. Allow primer to become dry to the touch before installing sealant. Primer reacts with moisture; keep container tightly closed when not in use.

Clean Up: Equipment can be cleaned immediately after use with xylol, mineral spirits or isopropyl alcohol. When using flammable solvents, consult manufacturer's MSDS for safety precautions.

Shelf life: One year from date of shipment when stored in original, unopened container at temperatures between 40 and 80°F (4 to 27°C).

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.

Application Properties*

Consistency	Amber colored liquid
Specific gravity	0.8
Density	6.7 lb/gal
Dry time from priming to sealant application, dependent on ambient temperature and relative humidity	30 minutes to 2 hours
Open time	24 hours
VOC content	6.5 lb/gal
Flash point	104°F (40°C)

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

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 the 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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Health precautions

- Contains a flammable solvent with a flash point of 72°F (22°C). Avoid ignition sources; keep away from heat, sparks and flame.
- Avoid repeated or prolonged contact with clothing or skin, especially open breaks. Immediately wash from skin with plenty of water for at least 15 minutes.
- Avoid all contact with eyes; if splashed in eyes, flush with water for 15 minutes and obtain immediate medical attention.
- Wash hands before eating or smoking.
- Harmful if swallowed; obtain immediate medical attention if ingested.
- Contains isocyanates and may cause allergic skin or respiratory reaction.
- Contains solvent. Avoid breathing vapors or spray mist. In case of adverse reaction to vapor, immediately remove affected personnel to fresh air and obtain medical attention.
- Keep out of reach of children.

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

NON-WARRANTY: ALL RECOMMENDATIONS, STATEMENTS AND TECHNICAL DATA CONTAINED HEREIN ARE BASED ON TESTS WE BELIEVE TO BE RELIABLE AND CORRECT, BUT ACCURACY AND COMPLETENESS OF SAID TESTS ARE NOT GUARANTEED AND ARE NOT TO BE CONSTRUED AS A WARRANTY, EITHER EXPRESS OR IMPLIED. USER SHALL RELY ON HIS OWN INFORMATION AND TESTS TO DETERMINE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY RESULTING FROM THIS USE OF THE PRODUCT. MANUFACTURER'S SOLE RESPONSIBILITY SHALL BE TO REPLACE THAT PORTION OF THE PRODUCT OF THE MANUFACTURER THAT PROVES TO BE DEFECTIVE. MANUFACTURER SHALL NOT BE LIABLE TO THE BUYER OR ANY THIRD PARTY FOR INJURY, LOSS OR DAMAGE DIRECTLY OR INDIRECTLY RESULTING FROM USE OF, OR INABILITY TO USE, THE PRODUCT. RECOMMENDATIONS OR STATEMENTS OTHER THAN THOSE CONTAINED IN A WRITTEN AGREEMENT SIGNED BY AN OFFICER OF THE MANUFACTURER SHALL NOT BE BINDING UPON THE MANUFACTURER.

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