



## TECHNICAL DATA SHEET – PERMAREZ® 345S

Revised: 2/2017

### DESCRIPTION

PermaRez 345S Saturant is a polymeric topcoat to the PermaRez 345 Crack- Bridging Chemical Resistant Composite Lining System. It is used as a saturant and bond coat to incorporate fiberglass reinforcement into the system, giving the system tensile strength between the elastomeric membrane and the chemical resistant topcoats. PermaRez 345 Saturant also serves as a bond coat for other PolySpec chemical resistant coatings.

### TYPICAL APPLICATION

|                |                                                                                             |
|----------------|---------------------------------------------------------------------------------------------|
| PRIMER         | PolySpec Primer @ 5-7 mils (concrete) or American Safety MS11CZLT Primer @ 4-6 mils (steel) |
| MEMBRANE       | PermaRez 345M @ 30-50 mils                                                                  |
| RECEIVING COAT | PermaRez 345S @ 20 mils                                                                     |
| FABRIC         | Type M (1.5 oz mat)                                                                         |
| SATURANT       | PermaRez 345S @ 15–20 mils                                                                  |
| TOPCOAT        | FlakeRez and NovoRez Top Coats are compatible.                                              |

### PERFORMANCE DATA

|                                                 |                                         |
|-------------------------------------------------|-----------------------------------------|
| COMPRESSIVE STRENGTH (ASTM C - 579)             | 10,000 psi                              |
| TENSILE STRENGTH (ASTM C - 412)                 | 2,000 psi                               |
| BOND STRENGTH (ASTM D - 4541)                   | Concrete failure                        |
| OPERATING TEMPERATURE, MAXIMUM,<br>DRY:<br>WET: | 150°F<br>Dependent on chemical exposure |

### BENEFITS

- Low viscosity, penetrates fiberglass for easy saturation
- Can be topcoated with vinyl ester, polyester or epoxy coatings
- Increased abrasion resistance
- Used with PermaRez 345 Membrane, provides tough stress relieving membrane on which chemical resistant coating systems are applied

### RECOMMENDED USES

- Chemical processing floor areas
- Drum storage pads
- Secondary containment
- Trenches and sumps
- Truck loading/unloading areas
- Concrete clarifiers

**GENERIC DESCRIPTION:** Epoxy Urethane

**STANDARD COLORS:** Amber

**PACKAGING:** 3-Gallon Unit

**MIX RATIO:** 1.6 R : 1 H

### COVERAGE:

30 ft<sup>2</sup> / gallon @ 40 mils  
(Includes one 20 mil coat and saturant)

**PERMAREZ® 345S**  
CRACK-BRIDGING LINING  
SATURANT, CHEMICAL RESISTANT

**STORAGE & INSTALLATION**

|                                    |                             |
|------------------------------------|-----------------------------|
| STORAGE ENVIRONMENT                | Dry area, 65-80°F           |
| APPLICATION TEMPERATURE, AMBIENT   | 50-95°F                     |
| APPLICATION TEMPERATURE, SUBSTRATE | Minimum 5°F above dew point |
| SHELF LIFE                         | 6 month                     |
| POT LIFE, @ 77°F                   | 45 minutes                  |
| SET TIME, @ 77°F                   | 16 hours                    |

**CONSIDERATIONS & LIMITATIONS**

- For best results, work area should be humidity and temperature controlled.
- Do not thin with solvents unless advised to do so by ITW Engineered Polymers.
- Confirm product performance in specific chemical environment prior to use.
- Prepare substrate according to "Surface Preparation" portion of this document.
- Do not apply to slabs on grade unless a heavy unruptured vapor barrier has been installed under the slab.
- Always use protective clothing, gloves and goggles consistent with OSHA regulations during use. Avoid eye and skin contact. Do not ingest or inhale. Refer to Material Safety Data Sheet for detailed safety precautions.
- For industrial/commercial use. Installation by trained personnel only.

**SURFACE PREPARATION**

**CONCRETE:** Apply only to clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants.

- New concrete should be cured a minimum of 28 days.
- Concrete that has been contaminated with chemicals or other foreign matter must be neutralized or removed.
- Remove any laitance or weak surface layers.
- Concrete should have a minimum surface tensile strength of at least 300 PSI per ASTM D-4541.
- Surface profile shall be CSP-3 to CSP-5 meeting ICRI (International Concrete Repair Institute) standard guideline #03732 for coating concrete, producing a profile equal to 60-grit sandpaper or coarser. Prepare surface by mechanical means to achieve this desired profile.
- Moisture vapor transmission should be 3 pounds or less per 1,000 square feet over a 24 hour time period, as confirmed through a calcium chloride test, as per ASTM E-1907. Quantitative relative humidity (RH) testing, ASTM F-2170, should confirm concrete RH results <75%.
- All surface irregularities, cracks, expansion joints and control joints should be properly addressed prior to application.
- Outgassing may occur due to the porosity of some concrete surfaces. To reduce the effect of outgassing, the primer and coating should be applied when the temperature of the concrete substrate is dropping. This usually occurs in the evening; however, the concrete substrate temperature should be measured with a surface thermometer for verification. Double priming will greatly reduce the effects of outgassing by additionally filling the pores in the concrete.

**STEEL:** For steel surfaces, a "Near White Metal" ultra high-pressure wash or abrasive blast with anchor profile of 2-4 mils in accordance with Steel Structures Painting Council Specification SP-10 or NACE No. 2 is required.

**Refer to PolySpec Surface Preparation Guidelines for more details.**

**INSTALLATION STEPS**

**NOTE:** *PermaRez 345S Saturant is normally applied over PermaRez 345M Membrane. See data sheet for installation details.*

- Pour Component B Hardener into Component A Resin. Mix thoroughly using a jiffy-type mixer operated at low speed until a uniform blend is attained. Scrape the sides of the pail to ensure the product has been properly mixed; any unmixed material left on the side of the pail will not cure.
  - Apply a thin coat of PermaRez 345 Saturant, approximately 20 mils, by roller or squeegee over the PermaRez 345 Membrane.
  - Lay in fiberglass mat reinforcement, overlapping the edges by 1-2 inches.
  - Apply additional PermaRez 345 Saturant Resin and roll out fiberglass until the whiteness of the glass disappears. Roll out with a serrated roller to remove any entrapped air.
  - Allow to cure (approximately 16 hours at 77°F) before proceeding.
  - Normally, the application of the topcoat can proceed without further surface preparation. When applying a polyester or vinyl ester topcoat, allow for saturant to cure a minimum of 72 hours. Wash the surface with soap and water before proceeding. Allow to thoroughly dry.
- NOTE:** *If the saturant becomes very hard due to extended cure time, lightly sand the surface before applying topcoat.*
- Always wear gloves when using this product.

1.6R: 1H / DOC PR345S-TDS

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