



## TECHNICAL DATA SHEET – PERMAREZ® 345M

Revised: 2/2017

### DESCRIPTION

PermaRez 345M Membrane is a durable elastomeric coating used as an underlayment/coating to bridge cracks in concrete. Used with PermaRez 345S Saturant and Fiberglass reinforcement, it provides a tough, stress relieving lining system to which chemical resistant coatings are applied.

### TYPICAL APPLICATION

PRIMER	PolySpec Primer @ 5-7 mils (concrete) or American Safety MS11CZLT Primer @ 4-6 mils (steel)
MEMBRANE	PermaRez 345M @ 30-50 mils
REINFORCEMENT SYSTEM	Receiving Coat: PermaRez 345S @ 20 mils Fabric: Type M (1.5 oz mat) Saturant: PermaRez 345S @ 15-20 mils
TOPCOAT	FlakeRez or NovoRez Top Coats are compatible.

### PERFORMANCE DATA

COMPRESSIVE STRENGTH (ASTM C - 579)	10,000 psi
TENSILE STRENGTH (ASTM C - 412)	2,000 psi
ELONGATION (ASTM D - 412)	96%
BOND STRENGTH (ASTM D - 4541)	Concrete failure
OPERATING TEMPERATURE, MAXIMUM, DRY: WET:	150°F Dependent on chemical exposure
VOC	0.00 lb/gal; 0.00 gm/L
VOLUME SOLIDS	100%

### BENEFITS

- Bridges moving & non-moving concrete cracks
- Chemical resistance exceeds typical flexible membranes
- High point load strength; supports vehicular and foot traffic-bearing surface
- Used with PermaRez 345 Saturant and Fiberglass, 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:** Gray

**PACKAGING:** 4-Gallon Unit

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

### COVERAGE:

- 50 ft<sup>2</sup> / gallon @ 30 mils
- 30 ft<sup>2</sup> / gallon @ 50 mils

**PERMAREZ® 345M**  
CRACK-BRIDGING LINING  
MEMBRANE, 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	25 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**

- Prime surface with PolySpec 100EX (concrete) or American Safety MS11CZLT (steel) Primer. See data sheet for application 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 with a notched squeegee, notched trowel or roller at a rate to obtain a 30–50 mil thickness.
- Subsequent lining should be applied after a minimum of 16 hours of cure time has elapsed.  
**NOTE: If the next coat is not applied within 96 hours, a solvent wipe or a light sanding may be necessary.**
- Always wear gloves when using this product.

1 R: 1 H / DOC PR345M-TDS

© Copyright 2017. All rights reserved. Published technical data and instructions are subject to change without notice. Please visit the online catalog at [www.polyspec.com](http://www.polyspec.com) for the most current technical data and instructions. Or, you may contact your ITW Engineered Polymers representative for current technical data and instructions.

ITW Engineered Polymers warrants its products to be free from defects in material and workmanship. ITW’s sole obligation and Buyer’s exclusive remedy in connection with the products shall be limited, at ITW’s option, to either replacement of products not conforming to this warranty or credit to Buyer’s account in the invoiced amount of the nonconforming products. Any claim under this Warranty must be made by Buyer to ITW in writing within five days of Buyer’s discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer’s failure to notify ITW of such nonconformance as required herein shall bar Buyer from recovery under this warranty.

**ITW makes no other warranties concerning this product. No other warranties, either expressed or implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply. In no event shall ITW Engineered Polymers be liable for consequential or incidental damages.**

Any recommendation or suggestion relating to the use of the products made by ITW, whether in its technical literature, or in response to specific inquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for the Buyer to satisfy itself of the suitability of the products for its own particular use, and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment changes in procedures of use, or extrapolation of data may cause unsatisfactory results. ITW cannot guarantee that color will conform to sample, if provided.