

DESCRIPTION

POLYPRIME™ 100 is a two-component 100% solids primer with excellent wet-out properties for deep penetration. **POLYPRIME™ 100** may be top coated or used as a stand-alone rust corrosion inhibitor. **POLYPRIME™ 100** component “A” (Modified diphenylemethane diisocyanate) is a brown colored liquid that has been chemically modified to be readily emulsifiable in water without the addition of surface active agents. **POLYPRIME-100™** component “B”, is a clear glyceryl tri-ester that will crosslink with the “A” component and enhance the chemical bond to the SPI polyurea topcoat. **POLYPRIME-100™** is typically mixed as a 50/50 ratio. However, if the substrate has a high moisture content the “A” component can be increased to a 60% “A” / 40% B” mix. **POLYPRIME-100™** is NSF/ANSI 61 approved for potable water.

FEATURES

- VOC Exempt (less than 1% VOCs)
- Penetrates and seals the surface, leaving a smooth, pinhole free coating
- Excellent adhesion to a variety of substrates
- Good physical properties
- Outstanding stability at low temperatures
- Defoamers or Deaerators can be used to further minimize pinholes.

APPLICATION

- Concrete and wood primer for polyurethane and polyurea spray coatings.
- Industrial flooring, roofing, decking, truck bed liners, pipeline, and tank coatings.

CONCRETE SURFACE PREPARATION

Remove dust, dirt, oil, laitance, curing compounds, concrete sealer, etc. from surface by power wash, acid etch, grit blast, or profiling equipment. The prepared concrete surface is to be clean, dry, hard/dense, and free of cracks and holes with a slightly roughened surface. For application on new concrete, refer to Specialty Products, Inc.’s Concrete Surface Preparation Guide.

Contact an SPI representative for surface preparation guideline publications.

Note: If “bug holes” or “capillaries” are present on the surface, an approved grout or filter may be used to minimize outgassing and the resultant “craters” in the SPI Polyurea topcoat.

COLOR

Cured material is amber, translucent with a slightly musty odor. Finish is semi-gloss.

DRY PROPERTIES

Service Temperature	-60° - 250°F (-50° - 121°C)
Tensile Strength ASTM D638	± 3,300 psi (23 mpa)
Elongation ASTM D638	± 85%
Tear Resistance	440 PLI (77 KN/m) ± 50
Topcoat Adhesion	500 psi (3.48 mpa) ± 100
Typical Film Thickness	3 - 5 mils
Minimum Re-Coat Time	1.5 hours
Maximum Re-Coat Time	18 hours

WET PROPERTIES

Solids by Volume	100%
Recommended Spread Rate at approx. 200 - 500 sq. ft. per gallon (18.5 - 46.5 m² per gallon)	Wet Mils: 3 - 8 mils
	Dry Mils: 3 - 8 mils
Flash Point	> 350°F (175°C)
Weight per gallon (mixed)	9.1 lbs. (4.15 kg)
Shelf Life Unopened Containers @ 77°F (25°C)	1 year

CURING SCHEDULE

Tack Free (to touch)	4 - 6 hours
Topcoat	6 - 10 hours
Pot Life*	10 - 15 min at 77°F (25°C) 60% R.H. unreduced
Maximum	within 8 hours following tack free at 70°F
Pot life in the container will be decreased (due to exothermic heat) when large quantities are mixed.	

RECOMMENDED EQUIPMENT & SETTINGS

- Standard 1:1 ratio, heated, plural-component equipment developing a minimum of 1500psi (10.4 mpa) dynamic pressure with heating capabilities to 175° F (79°C) will adequately spray Polyprime-100™. These include Graco 20/35, 20/35 Pro, H-2000, H-3500, HV-20/35, Reactor A-20, E-20, E-30, E-XP1, E-XP2, H-25, H-40, H-XP2, H-XP3, SPI 18/18, and SPI Gusmer 25/25, with a Fusion MP, Gap Pro, Glass Craft P2, P2 Elite, P2 Elite "C", P3, Gusmer D-7, GX-8 Pro, and SPI D-7 gun.
- Pre-heater temperature should be at 110°F – 130°F (43°C – 54°C).
- Hose temperature should be at 110°F – 130°F (43°C – 54°C). A hose thermometer inserted under the insulation near the gun should read a minimum of 90°F – 110°F (32°C – 43°C).
- A SPI static mix adapter with airless tip is recommended to enhance physical properties.

TEST INFORMATION

POTABLE WATER CERTIFICATION US ANSI NSF-61	Pass
Minimum tank size 3,000 gallons, maximum surface area/volume ratio (sq cm/L) 25.81	

GENERAL SAFETY, TOXICITY, & HEALTH

Safety Data Sheets are available for this coating material. Any individual who may come in contact with these products should read and understand the S.D.S. **CHEMTREC EMERGENCY NUMBER 1-800-424-9300 INT'L 1-703-527-3887.**

WARNING: Contact with skin or inhalation of vapors may cause an allergic reaction. Avoid eye contact with the liquid or spray mist. Hypersensitive persons should wear protective clothes, gloves and use protective cream on face, hands and other exposed areas.

CLEAN UP: Use DPM, NMP, and Polyclean.

EYE PROTECTION: Safety eyewear complying with an approved standard should be used when a risk assessment

indicates this is necessary to avoid exposure to liquid splashes, mist or dusts. If contact is possible, the following protection shall be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazard exist, a full-face respirator may be required.

SKIN PROTECTION: Personal protective equipment for the body should be selected based on the task being performed; the risks involved, and should be approved by an industrial hygiene specialist before handling this product. Chemical resistant gloves complying with applicable health and safety standards shall be worn when handling this product. Protective gloves are those made from butyl rubber, nitrile rubber or polyvinyl alcohol. Appropriate hazard assessments in conjunction with an evaluation of the protection factors of chemical resistant gloves shall be performed to ensure the protective properties remain intact. It is noted that the time to breakdown of protection factors for different glove manufacturers varies. In the case of mixtures, the protection factors of chemical resistant gloves may be impacted and deteriorate at unpredictable rates without understanding the impact of the substance and the specific protection factors of the chemical resistant gloves.

RESPIRATORY PROTECTION: Ensure adequate ventilation. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator. Ensure the respirator is properly fitted.

INGESTION: Do not take internally. It is believed that ingestion of polymeric isocyanates would not be fatal to humans, but may cause inflammation of mouth and stomach tissue.

WARRANTY & DISCLAIMER

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SPI Media



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