PolySpec THIOKOL

TECHNICAL DATA SHEET – POLYSPEC® 100EX

Revised: 3/2018

DESCRIPTION

PolySpec 100EX is a 100% solids, moisture tolerant, penetrating epoxy primer used to prime concrete surfaces for high performance applications. It is commonly utilized as part of a complete TuffRez flooring system and is also suited for use with epoxy novolac lining systems.

TYPICAL APPLICATION

PRIMER	PolySpec 100EX Primer @ 175–200 ft²/gallon
OVERCOAT	Flooring or Lining System from PolySpec
OPTIONS	Carbon Filler Formula Upgrade (PolySpec 100EX-CF)

PERFORMANCE DATA

BOND STRENGTH (ASTM D - 4541)	concrete failure; >350 psi
VOC	0.0 lb/gal; 0.0 gm/L
VOLUME SOLIDS	100%

STORAGE & INSTALLATION

STORAGE ENVIRONMENT	Dry area, 65–80ºF
APPLICATION TEMPERATURE, AMBIENT	50–95ºF
APPLICATION TEMPERATURE, SUBSTRATE	Minimum 5ºF above dew point
SHELF LIFE	1 year
POT LIFE, @ 77ºF	60 minutes
SET TIME, @ 77ºF	4-6 hours

BENEFITS

- 100% solids formulation eliminates solvent odors
- Low viscosity formulation penetrates and seals concrete pores
- Provides superior adhesion to concrete and higher tensile and flexural strengths when compared to conventional polyamide primers
- Cures at ambient temperatures down to 50ºF
- Resistant to amine blush, even when cured at low temperatures and high humidity
- Requires zero induction time

RECOMMENDED USES

- Concrete primer, as part of a complete TuffRez® flooring system
- Concrete primer, as part of a complete epoxy novolac lining system
- Enclosed and occupied spaces

GENERIC DESCRIPTION: Primer

STANDARD COLORS: Amber

PACKAGING: 3-Gallon Unit

MIX RATIO: 2R:1H

COVERAGE:
175–200 ft²/gallon
May vary depending on concrete porosity

POLYSPEC® 100EX

EPOXY PRIMER FOR CONCRETE, 100% SOLIDS

ITW Polymers Sealants North America

CONSIDERATIONS & LIMITATIONS

1. ITW Polymers Sealants North America, Inc. does not recommend that grit be broadcast or otherwise introduced into PolySpec 100EX Primer. If enhanced slip resistance is desired, the flooring systems' body coat or topcoat may be specified to serve this function.
2. This product is not designed to provide complete hide and color coverage. If complete hide is required, use additional TuffRez topcoats.
3. Floors should be sloped to drain to prevent standing water or chemicals. As with any surface, all spills should be removed as soon as possible to prevent a slipping hazard.
4. Do not thin with solvents unless advised to do so by ITW Polymers Sealants North America, Inc.
5. Confirm product performance in specific chemical environment prior to use.
6. Prepare substrate according to "Surface Preparation" portion of this document.
7. Always use protective clothing, gloves and goggles during use. Avoid eye and skin contact. Do not ingest or inhale. Refer to Safety Data Sheet for detailed safety precautions.
8. 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.

Refer to PolySpec Guidelines for Subfloor Preparation for additional details.

INSTALLATION STEPS

1. Component A Resin should be premixed prior to using due to possible additive separation.
2. Pour Component B Hardener into the Component A Resin pail and mix for a minimum of two minutes, using a mechanical jiffy-type mixer operated at low speed. Scrape the side of the pail to ensure the entire product has been properly mixed; any unmixed material left on the side of the pail will not cure.
3. Apply resin/hardener mixture by roller or squeegee. Move quickly and empty contents of pail onto surface as soon as possible to provide maximum working time. Material left in the pail will generate heat and have a reduced pot life.
   NOTE: *Do not turn the pail upside down and allow to drain onto substrate.*
4. Follow squeegee application with a back-roll using a short nap roller.
5. **OPTIONAL STEP:** Once primer has become tacky to the touch, a second primer coat may be applied.
   NOTE: *Double priming will greatly reduce the effects of outgassing by additionally filling the pores in the concrete.*
   NOTE: *Broadcasting grit into PolySpec 100EX Primer is not recommended.*
6. Once primer has become tacky to the touch, proceed to installation of a PolySpec flooring or lining system; refer to technical data sheet for installation instructions.
   NOTE: *Primed surfaces should be recoated within 48 hours. For longer waiting periods, wipe with xylene until surface becomes tacky. If surface remains hard, abrasive sanding is required.*
   NOTE: *Prior to installing an overcoat and/or lining system, closely inspect the surface of the PolySpec 100EX to ensure that no contaminants have settled there. The longer the time between the primer application and the overcoat, the greater the chance of contamination. If any contamination occurs, it should be removed using clean rags with alcohol. Change rags frequently to ensure cleanliness.*

2R:1H / DOC PS100EX-TDS

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