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TECHNICAL DATA SHEET – PE-310 PRIMER

Revised: 2/2017

DESCRIPTION

PolySpec-Futura PE-310 Primer is a two component polyester primer for polyester and vinyl ester coatings and lining systems applied to both steel and concrete surfaces. PE-310 Primer is low viscosity resin designed to promote adhesion between the specified coating and the substrate surface.

TYPICAL APPLICATION

STEEL	Varies, (2–3 mils DFT)
CONCRETE	500-800 sq ft per gallon

PERFORMANCE DATA

TENSILE STRENGTH (ASTM D - 412)	10,000 psi
ELONGATION (ASTM D - 638)	10-12%
HARDNESS, BARCOL	30
VOC	1.75 l b/gal; 208 gm/L

STORAGE & INSTALLATION

STORAGE ENVIRONMENT	Dry area, 65-95 °F
APPLICATION TEMPERATURE, AMBIENT	50-95°F
APPLICATION TEMPERATURE SUBSTRATE, 50-95°F	Minimum 5°F above dew point
SHELF LIFE	120 days
POT LIFE, @ 77°F	25 minutes
RECOAT WINDOW, @ 77°F	Minimum: 4 Hours, Maximum: 10 Days

BENEFITS

- Provides flexible transition between substrate and coating or lining system
- Excellent surface adhesion to substrate
- Excellent bond to subsequent lining system
- Protects blasted steel from rust
- Penetrates and seals concrete
- Reduces moisture vapor transmission and outgassing on concrete
- Contains no lead pigment

RECOMMENDED USES

- Used in conjunction with FlakeRez and PermaRez polyester or vinyl ester coatings & lining systems on both concrete and steel

GENERIC DESCRIPTION:

Polyester Primer

STANDARD COLORS:

Amber

PACKAGING:

- 1-Gallon Unit
- 5-Gallon Unit

(HARDENER SOLD SEPARATELY)

MIX RATIO

1 GAL R: 2 OZ H

COVERAGE:

500-800 sq. ft. per gallon

PE-310 PRIMER
PRIMER FOR POLYESTERS AND VINYL ESTERS
ON CONCRETE AND STEEL

CONSIDERATIONS & LIMITATIONS

1. This product is not designed to provide complete hide and color coverage.
2. This product is not recommended as a tank lining by itself.
3. This product is not designed for vehicular traffic by itself.
4. Do not apply to wet or damp substrates.
5. Do not apply where ambient operating temperatures exceed 150°F or where application temperatures are below 40°F or above 95°F.
6. Work area must be well ventilated. Fresh air fed respirators are recommended when working with this product.
7. Do not thin with solvents unless advised to do so by ITW Engineered Polymers.
8. Confirm product performance in specific chemical environments with ITW Engineered Polymers prior to use.
9. Prepare substrate according to "Surface Preparation" portion of this document.
10. Do not apply to slabs on grade unless a heavy unruptured vapor barrier has been installed over the slab.
11. 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.
12. 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 immersion service, "White Metal" abrasive blast with an anchor profile of 2–4 mils in accordance with Steel Structures Painting Council Specification SP-5-63 or NACE No. 1 is required. For splash and spillage exposure, "Near White" SP-10-63 or NACE No. 2 is required.

Refer to PolySpec Surface Preparation Guidelines for more details.

INSTALLATION STEPS

1. Add hardener #1 per the mix ratio table guidelines listed below.
2. Apply by roller or spray.
3. After the prime coat is dry to the touch, (usually 6-8 hours at 77 degrees F°), proceed to installation of FlakeRez® or PermaRez® coating/lining system.
4. For best results, clean tools and equipment with PolySpec® All Purpose Cleaner, a nonflammable and non-evaporating cleaner. Always wear gloves when using this product.

MIX CHART FOR POLYSPEC-FUTURA PE-310 PRIMER, SPRAY/PLURAL

TEMPERATURE	45°F	55°F	65°F	75°F	85°F
HARDENER #1	2.8%	2.0%	1.5%	1.5%	1.5%

MIX CHART FOR POLYSPEC-FUTURA PE-310 PRIMER, HOT POT/AIRLESS

TEMPERATURE	45°F	55°F	65°F	75°F	85°F
HARDENER #1	3.5 oz.	2.5 oz.	2 oz.	2 oz.	2 oz.

MIX INSTRUCTIONS FOR POLYESTER REPAIR COMPOUND

1. Add Hardener #1 to PE-310 Resin @ 2 ounces per gallon ratio.
2. Mix using a ½ inch drill and suitable mixing paddle at approximately 250 rpm for 30 seconds.
3. Add PolySpec F-4 Powder, 3-parts by volume to 1-part mixed PE-310 Resin. Mix to a uniform consistency.
4. Additional F-4 Powder or Cabosil can be added for additional thickening.

1galR : 2ozH / DOC PE310 TDS

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