



## TECHNICAL DATA SHEET – FLAKEREZ® VE-8330 TOP COAT

Revised: 2/2017

### DESCRIPTION

FlakeRez VE-8330 Top Coat is a two component, resin rich flake-filled vinyl ester novolac resin top coating with a paraffin additive to enhance chemical resistance and insure 100% cure of the base coats by preventing oxygen in the atmosphere from inhibiting cure. VE-8330 Top Coat is designed to be used as a finish coat with other high build FlakeRez linings, such as FlakeRez VE 8303, FlakeRez VE 9310 and FlakeRez VE 9360.

### TYPICAL APPLICATION

PRIMER	PolySpec PE-310 on Steel: (2-3 mils DFT) PolySpec PE-310 on Concrete: 500-800 sq ft per gallon
DETAIL PREPARATION	Putty mortar made of PE-310 Primer and F-4 Powder
BASECOAT	FlakeRez VE-9310, 9360 or 8303
TOPCOAT	FlakeRez VE-8330 Top Coat @ 10-12 mils DFT

### PERFORMANCE DATA

TENSILE STRENGTH (ASTM C - 307)	3,500 psi
FLEXURAL STRENGTH (ASTM C - 580)	8,500 psi
HARDNESS, BARCOL (ASTM D - 2583)	35-40
ABRASION RESISTANCE (ASTM D - 4060)	25 mg
MOISTURE PERMEABILITY, PERM. IN. (ASTM E-96)	0.0006
OPERATING TEMPERATURE, MAXIMUM, DRY: WET:	392°F Dependent on chemical exposure
VOC	0.92 lb/gal; 111 gm/L

### BENEFITS

- Excellent resistance to aggressive chemicals
- Seamless, jointless barrier coating
- Long-term reliability due to extremely low permeation rate of overlapping flake technology
- Enhances cure of the entire system
- No baking required
- Withstands high operating temperatures

### RECOMMENDED USES

- Tank interior lining
- Process vessels
- Process floors
- Tank and effluent sump dikes
- Scrubbers / Absorbers
- Ductworks and Flues

### GENERIC DESCRIPTION:

Flake-Filled Vinyl Ester Novolac

### STANDARD COLORS: White

**PACKAGING:** 4.5-Gallon Unit  
(HARDENER NOT INCLUDED)

**MIX RATIO:** 1 GAL R: 2 OZ H

**COVERAGE:** 94 ft<sup>2</sup>/gallon @ 10 - 12 mils DFT

**FLAKEREZ® VE-8330 TOP COAT**  
CONCRETE & STEEL COATING,  
FLAKE-FILLED, ULTRA CHEMICAL RESISTANT

**STORAGE & INSTALLATION**

STORAGE ENVIRONMENT	Dry enclosed area, 55-95°F
APPLICATION TEMPERATURE, AMBIENT	50-110°F
APPLICATION TEMPERATURE, SUBSTRATE, 50 – 110°F	Minimum 5°F above dewpoint
SHELF LIFE <i>Provided storage environment guidelines are followed</i>	120 days
POT LIFE, @ 77°F	30 minutes
FULL SERVICE, @ 77°F	3 days
RECOAT, @ 77°F	N/A

*Material cures more slowly at cooler temperatures, and working time will be substantially reduced at higher temperatures. In hot weather, material should be cooled to 65°F to 80°F prior to mixing and application to improve workability and avoid shortened pot life. The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.*

**CONSIDERATIONS & LIMITATIONS**

- For best results, work area should be humidity and temperature controlled.
- Work area must be well ventilated. Fresh air fed respirators are recommended when working with this product.
- Do not thin with solvents unless advised to do so by ITW Engineered Polymers.
- Confirm product performance in specific chemical environments with ITW Engineered Polymers 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 must be by trained personnel only.
- FlakeRez VE-8330 is a final coat. Do not attempt to recoat.

**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**

- Prime surface with PolySpec-Futura PE-310 Primer. See data sheet for application details.
- Use a mortar/mud mixture of PolySpec-Futura PE-310 mixed with F-4Powder, (approximately 4-parts powder to 1-part mixed resin), to round the corner radius of vertical to horizontal transitions, to smooth weld seams, and to patch holes and irregularities. See data sheet for application details.
- Internal surfaces should be in accordance with NACE RP – 0178 with all welds equal to or superior to a NACE RP 0178 designation "C". It may be necessary to apply a precoat of the specified FlakeRez system coating as a build coat.
- Catlayze FlakeRez (9310, 9360, or 8303) per PolySpec Futura mix charts and apply to specified dry film thickness.
- Prepare FlakeRez VE-8330 according to the instructions outlined below:

**MIX CHART FOR FLAKEREZ VE-8330 COATING, SPRAY/PLURAL**

TEMPERATURE	45°F	55°F	65°F	75°F	85°F
HARDENER #1 (MEKP)	2.8%	2.1%	1.4%	1.0%	1.0%

**MIX CHART FOR FLAKEREZ VE-8330 COATING, HOT POT/AIRLESS**

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

- Apply first coating at 10-12 dry mils:
  - Spray Application: Plural Component, Conventional or Airless Spray** Detail all edges prior to spray application. When applying by spray, apply in a cross hatch pattern, taking care to avoid excessive build-up of coating.
  - Brush or Roller Application** Brush or roll onto substrate.
- After coating is completed, allow 3 days @ 77° F for curing. Random sample checks using a Barcol Hardness gauge should indicate a minimum reading of 30.
- Before placing into service, holiday test the entire surface (per ASTM D-5162) using 100 volts/mil of total system. Test instrument produces a spark, so it is imperative that the area be well ventilated and free of vapors. Allow product to cure 16-24 hours prior to testing. All holiday areas should be recoated and retested.
- Always wear gloves when using this product.

1 GAL R: 2 OZ H / DOC FRVE8330-TDS  
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