PolySpec THIOKOL

TECHNICAL DATA SHEET – NOVOREZ® 370

Revised: 2/2017

DESCRIPTION

NovoRez® 370 Heat Resistant Coating is a glass flake filled, 100% solids, fast curing epoxy novolac incorporating a nano-particle toughening agent for increased flexibility and impact resistance. This product is specifically formulated for immersion service in harsh environments operating at elevated temperatures.

TYPICAL APPLICATION

PRIMER - IMMERSION	Self priming in immersion service
PRIMER - ATMOSPHERIC	MS-11CZ @ 5-7 mils (Steel) PolySpec 100EX (Concrete)
1 COAT	NovoRez® 370 @ 20-25 mils per coat

PERFORMANCE DATA

TENSILE STRENGTH (ASTM D - 638)	4,000 psi
ELONGATION (ASTM D - 638)	3%
HARDNESS, SHORE D (ASTM D - 2240)	82-87
BOND STRENGTH (ASTM D - 4541) (ADHESIVE FAILURE)	>3000 psi
ABRASION RESISTANCE (ASTM D - 4060)	50 mg
ATLAS CELL TEST (CHEMICAL RESISTANCE) (ASTM C - 868) (60 DAYS EXPOSURE WITH ΔT >60°F)	No Blistering
DEGREE OF BLISTERING (ASTM D - 714) (30 DAYS OF EXPOSURE AT 200°F)	300ºF
OPERATING TEMPERATURE, MAXIMUM, DRY: WET: FUELS	 300ºF 250ºF
VOC	0.0 lb/gal ; 0.0 gm/L
VOLUME SOLIDS	100%

BENEFITS

- Provides glass flake reinforcement for greater impermeability
- Resists crude oil, hydrocarbons, and sulfur compounds
- High temperature stability. Service temperature of 300°F dry and 250°F wet for many hydrocarbons
- Good abrasion resistance

RECOMMENDED USES

- Crude oil and hydrocarbon storage
- Petroleum bulk storage tanks
- Internal lining for rail tanks cars
- Hydrocarbon water mixtures
- Oil and water separators

GENERIC DESCRIPTION:
Glass Flake Filled Epoxy Novolac

STANDARD COLORS: Medium Gray

PACKAGING: 4-Gallon Unit

MIX RATIO: 3:1 By Volume

COVERAGE: 64 ft² / gallon @ 25 mils

NOVOREZ® 370

HEAT RESISTANT COATING, GLASS FILLED EPOXY NOVOLAC COATING

ITW Engineered Polymers

PolySpec THIOKOL

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STORAGE & INSTALLATION

STORAGE ENVIRONMENT	Dry area, 50-80 ºF
APPLICATION TEMPERATURE, AMBIENT	60-95ºF
APPLICATION TEMPERATURE, SUBSTRATE	Minimum 5ºF above dewpoint
SHELF LIFE	1 year
POT LIFE, @ 77ºF	20-25 minutes
FOOT TRAFFIC, @ 77ºF	4-6 hours
RETURN TO SERVICE, @ 77ºF	48 hours
RECOAT WINDOW	–

SURFACE TEMPERATURE

	60-69°F	70-89°F	90°F
RECOAT (MIN)	6-8 hours	4-5 hours	2-3 hours
RECOAT (MAX)	20-24 hours	12-16 hours	6-8 hours

CONSIDERATIONS & LIMITATIONS

1. Do not thin with solvents unless advised to do so by ITW Engineered Polymers.
2. Confirm product performance in specific chemical environment prior to use.
3. Prepare substrate according to “Surface Preparation” portion of this document.
4. 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

Proper surface preparation and inspection are required for all PolySpec® products. The following guideline steps are required to obtain a properly prepared surface prior to installation of this coating.

IRON AND STEEL: For immersion service All surfaces must be clean and dry, free of dust, dirt, oil or other foreign matter. Steel surfaces shall be abrasive blasted to SSPC-SP5 /NACE No. 1 White Metal Cleaning with a minimum angular profile of 2–4 mils.

CONCRETE AND MASONRY (ATMOSPHERIC AND IMMERSION): Apply only to clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants. For surface preparation, refer to SSPC-SP13/ NACE No. 6, or ICRI No. 310.2, CSP 3-5. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of efflorescence, laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bugholes and voids with PolySpec® RezRok® 105 or 106.

STRIPE COATING: A stripe coat of NovoRez®370 (if specified by owner and/or engineer) may be applied by brush or roller at a rate of 8-12 Mils DFT.

REPAIR OF PITTED TANK BOTTOMS: Apply a full wet coat, by spray application, of NovoRez® 370. Follow with rubber squeegee to work material into, and fill, the pitted areas. After recommended dryingtime, apply a full coat of NovoRez® 370 at recommended film thickness. Please use RezRok® 180 Epoxy Novolac Engineering Repair Compound to fill pits in excess of 40 mils.

Refer to PolySpec Surface Preparation Guidelines for more details.

INSTALLATION STEPS

NOTE: *NovoRez® 370 is recommended to be applied direct to metal when used for immersion applications on steel. However, in non-immersion applications a primer may be used.*

1. **PRIMING:**
   CONCRETE: 100EX Primer @ 5-7 mils.
   STEEL: American Safety MS-11CZ @ 2-5 mils.
2. Plural mixing is the preferred method of application. A 3:1 ratio airless spray pump, such as a Graco XP70, should be used.
3. Component A Resin and Component B Hardener should be separately premixed prior to using due to possible pigment settling that may occur during transportation and storage.
4. Component A should be heated to 130°F.
   Component B should be heated to 130°F.
   The hose should be heated to 130°F
5. Run Component A through a 3/8” heated line to the mixing manifold. Run Component B through a 1/4” heated line to the mixing manifold.
6. A 12” (24 turn), 3/8 stainless steel static mixer should be installed coming off the mix manifold. From the static mixer install a 3/8” 25 foot fluid hose. From the fluid hose install an additional 12” (24 turn), 3/8” stainless steel static mixer. Using a reducer attach a ¼” “Whip” hose approximately 10 feet in length. The whip hose should attach directly to the Spray Gun.
   NOTE: *Fluid lines should be wrapped with foam and protected with a scuff jacket.*
7. Remove the filters from the gun and the pump. Adjust the fluid pressure of Component A and Component B to 2800-3200 psi. Use a 0.525-0.529 tip.
8. Immediately flush lines & static mixers, if spraying is stopped for more than three minutes. Heated material will begin to gel within 4 minutes time at 120°F.
9. Repairs may be done by brush, roller, or spray.

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