



## TECHNICAL DATA SHEET – NOVOREZ® 370

Revised: 3/2018

### 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)<br>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)<br>(ADHESIVE FAILURE)  | >3000 psi             |
| ABRASION RESISTANCE (ASTM D - 4060)  | 50 mg                 |
| ATLAS CELL TEST<br>(CHEMICAL RESISTANCE) (ASTM C - 868)<br>(60 DAYS EXPOSURE WITH $\Delta T > 60^{\circ}F$ ) | No Blistering         |
| DEGREE OF BLISTERING (ASTM D - 714)<br>(30 DAYS OF EXPOSURE AT 200°F)  | 300°F                 |
| OPERATING TEMPERATURE, MAXIMUM,<br>DRY:<br>WET: FUELS  | 300°F<br>225°F        |
| 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 225°F wet for many hydrocarbons
  - Good abrasion resistance
  - NSF/ANSI 61 Certified; Meets FDA 21 CFR 175.300 for food contact\*
- \*Must be applied without added thinners

### RECOMMENDED USES

- Crude oil and hydrocarbon storage
- Petroleum bulk storage tanks
- Internal lining for rail car tanks
- 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 ft<sup>2</sup> / gallon @ 25 mils

# NOVOREZ® 370

## HEAT RESISTANT COATING, GLASS FILLED EPOXY NOVOLAC COATING

**STORAGE & INSTALLATION**

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

**SURFACE TEMPERATURE**

|              | 65°F     | 75°F     | 90°F    |
|--------------|----------|----------|---------|
| RECOAT (MIN) | 8 hours  | 5 hours  | 3 hours |
| RECOAT (MAX) | 24 hours | 16 hours | 6 hours |

**CONSIDERATIONS & LIMITATIONS**

- Do not thin with solvents unless advised to do so by ITW Polymers Sealants North America, Inc.
- Confirm product performance in specific chemical environment prior to use.
- Prepare substrate according to "Surface Preparation" portion of this document.
- 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. 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 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 bug holes 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 WFT.

**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 drying time, apply a full coat of NovoRez® 370 at recommended film thickness. Please use PhillyBond #6 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 is recommended.

**1. PRIMING:**

**CONCRETE:** PolySpec 100EX Primer @ 5-7 mils.

**STEEL:** American Safety MS-11CZ @ 2-5 mils.

- Plural mixing is the preferred method of application. A 3:1 ratio airless spray pump, such as a Graco XP70, should be used.
- 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.
- Component A should be heated to 130°F. Component B should be heated to 130°F. The hose should be heated to 130°F.
- 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.
- 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 1/4" "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.

**10. OPTIONAL APPLICATION METHOD:**

**NovoRez 370 Guidelines: Airless or Hot Pot Application** Ensure product is stored prior to use at @ 60-75°F in well ventilated area out of direct sunlight. Keep lids tightly closed on containers when not in use. Store only in original containers. Prior to spraying Part A resin and Part B hardener should be heated individually to 80-85°F before mixing so product will atomize properly. Only thin per recommendations after product has been mixed and converted. Thin no more than 10% with a 50/50 mix of MEK and Xylene. Mix product again for an additional 2 to 3 minutes after adding solvent. Mixed product must be sprayed within 20 minutes after mixing. When material temperature hits 105°F immediately flush lines and mix new product. Specs: 0.027-0.031 tips size; 56:1 or greater pump; 50ft x 1/2" hose length/diameter (do not exceed 100" in hose length); 10ft x 3/8" whip length/diameter; pot life @ 85°F is 15-20 minutes.

\*Product cannot be used in NSF/ANSI 61 or FDA applications if thinned

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