



TECHNICAL BULLETIN – FNEC® 2515

Revised: 3/2017

DESCRIPTION

Thiokol FNEC 2515 is a 100% solids, two-component, flexible novolac epoxy coating suited for use on concrete and steel substrates. It provides protection from chemical attack and environmental degradation in primary and secondary containment applications.

TYPICAL APPLICATION

| | |
|-----------|--|
| PRIMER | PolySpec 100EX @ 5–7 mils (concrete) or American Safety MS11CZLT Primer @ 4–6 mils (steel) (steel surfaces may not require a primer) |
| BASE COAT | FNEC 2515 @ 16–20 mils |
| TOP COAT | FNEC 2515 @ 16–20 mils |

PERFORMANCE DATA

| | |
|-------------------------------------|--------------------------------|
| COMPRESSIVE STRENGTH (ASTM C - 579) | 30,000 psi |
| TENSILE STRENGTH (ASTM C - 638) | 700 psi |
| HARDNESS, SHORE D (ASTM C - 2240) | 35-40 |
| ELONGATION | 75% |
| OPERATING TEMPERATURE, MAXIMUM DRY: | 150°F |
| WET: | Dependent on chemical exposure |
| VOC | 0.00 lb/gal; 0.00 gm/L |
| VOLUME SOLIDS | 100% |

BENEFITS

- 100% solids, zero VOC formulation
- Excellent resistance to petroleum and urea ammonium nitrate (UAN) products
- Easy application - 1:1 mix ratio, sprays in two 16-20 mil coats
- Flexibility beyond conventional tank linings
- High impact resistance

RECOMMENDED USES

- Above ground tanks
- Underground fuel storage tanks
- Tank bottoms
- Rail car linings
- Secondary containment

GENERIC DESCRIPTION:

Polysulfide-Modified Novolac Epoxy

STANDARD COLORS:

Light Gray, White
Contrasting colors should be used for basecoat and topcoat to ensure complete coverage.

PACKAGING:

10-Gallon Unit

MIX RATIO:

1R: 1H

COVERAGE:

100 ft² / gallon @ 16 mils

FNEC® 2515
CONCRETE & STEEL COATING, FLEXIBLE NOVOLAC EPOXY

STORAGE & INSTALLATION

| | |
|------------------------------------|----------------------------|
| STORAGE ENVIRONMENT | Dry area, 65-80°F |
| APPLICATION TEMPERATURE, AMBIENT | 50-95°F |
| APPLICATION TEMPERATURE, SUBSTRATE | Minimum 5° above dew point |
| MAXIMUM SERVICE TEMPERATURE | 150°F |
| SHELF LIFE | 1 year |
| POT LIFE, @ 77°F | 30 minutes |
| FOOT TRAFFIC, @ 77°F | 16 hours |
| FULL SERVICE, @ 77°F | 7 days |

SURFACE TEMPERATURE

| | 60 - 69°F | 70 - 89°F | 90°F |
|--------------|--------------|--------------|-------------|
| RECOAT (MIN) | 36 -16 hours | 20 -12 hours | 6 - 8 hours |
| RECOAT (MAX) | 4 days | 72 hours | 48 hours |

CONSIDERATIONS & LIMITATIONS

1. This product will amber/yellow with exposure to UV.
2. Do not thin with solvents unless advised to do so by PolySpec.
3. Confirm product performance in specific chemical environment prior to use.
4. Prepare substrate according to "Surface Preparation" portion of this document.
5. Do not apply to slabs on grade unless a heavy unruptured vapor barrier has been installed under the slab.
6. 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.
7. 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. Prime surface with PolySpec 100EX or American Safety MS11CZLT Primer @ 4-6 mils. See data sheet for application details.
2. Component A Resin should be premixed prior to using due to possible pigment settling that may occur during transportation and storage.
3. Prepare and apply a 16-20 mil coat of FNEC 2515 according to one of the methods outlined below:

Plural Component Heated Spray Equipment (recommended)

D. Plural mixing is the preferred method of application. A 1:1 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 110-120° F. Component B should be heated to 110-120° F.

The hose should be heated to 120° F

Run Component A through a 3/8" heated line to the mixing manifold. Run Component B through a 3/8" 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.

Remove the filters from the gun and the pump. Adjust the fluid pressure of Component A and Component B to 2400-3000 psi. Use a 0.021-0.029 tip.

Immediately flush lines & static mixers, if spraying is stopped for more than three minutes. Heated material will begin to gel within 10 minutes time at 120°F.

Repairs may be done by brush, roller, or spray.

E. Batch Mixing for Roller, Squeegee, Brush'

Pour Component B Hardener into Component A Resin pail. Mix well for 2-3 minutes using a mechanical jiffy-type mixer operated at low speed until a consistent color is attained. Scrape container sides to ensure a proper blend.

Apply by roller, squeegee or brush.

NOTE: Work very quickly due to the product's short pot life.

4. Minimum recoat time is 16-24 hours; maximum recoat time is 72 hours at normal temperatures. If coating exceeds this time period, contact PolySpec for assistance.
5. Always wear gloves when using this product.

1R:1H / DOC FNEC2515-TDS

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