



TECHNICAL BULLETIN – FNEC® 2515 FOR UFGS 09 97 13.15

Revised: 5/2018

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) (steel surfaces may not require a primer)
STRIPE COAT	FNEC 2515 @ 5–8 mils
BASE COAT	FNEC 2515 @ 12–15 mils
TOP COAT	FNEC 2515 @ 12–15 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	150°F
DRY:	Dependent on chemical exposure
WET:	
VOC	0.00 lb/gal; 0.00 gm/L
VOLUME SOLIDS	100%

1R:1H / DOC FNEC2515-TDS

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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 12-15 mil coats
- High impact resistance
- Compatible with Thiokol 2282 sealant
- Thiokol 2282 sealant meets UFGS-09 97 13.15 requirements

RECOMMENDED USES

- Navy Seal tanks per UFGS 09 97 13.15 Specifications
- 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
100-Gallon Unit

MIX RATIO:

1R : 1H

COVERAGE:

106 ft² / gallon @ 15 mils

FNEC® 2515 FOR UFGS 09 97 13.15

CONCRETE & STEEL COATING, FLEXIBLE NOVOLAC EPOXY

STORAGE & INSTALLATION

STORAGE ENVIRONMENT	Dry area, 40-100°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, @ 73°F	30 minutes
TOUCH DRY, @ 73°F	16 hours
HARD DRY, @ 73°F	36 hours
FULL SERVICE, @ 77°F	14 days

SURFACE TEMPERATURE

	60-69°F	70-79°F	80-89°F	90-99°F	100-109°F	110-120°F
RECOAT (MIN)	36 hrs	36 hrs	24 hrs	24 hrs	16 hrs	16 hrs
RECOAT (MAX)	336 hrs	240 hrs	168 hrs	96 hrs	48 hrs	48 hrs

CONSIDERATIONS & LIMITATIONS

1. This product will amber/yellow with exposure to UV.
2. Do not thin with solvents unless advised to do so by ITW Polymers Sealants North America, Inc.
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 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 concretet.

STEEL: For immersion service "Near White Metal" abrasive blast with an anchor profile of 2-4 mils in accordance with Steel Structures Painting Council Specification SP-10-63 or NACE No. 2 is required.

Refer to PolySpec Surface Preparation Guidelines for more details.

INSTALLATION STEPS

1. Prime concrete surface (no primer needed for steel) with PolySpec 100EX Primer @ 5-7 mils. See data sheet for application details.
2. Stripe coat with FNEC 2515 @ 5-8 mils per UFGS-09 97 13.15 requirements.
3. Component A Resin should be premixed prior to using due to possible pigment settling that may occur during transportation and storage.
4. Prepare and apply a 12-15 mil coat of FNEC 2515 according to one of the methods outlined below:

Plural Component Heated Spray Equipment (recommended)

a. 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.

b. 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 Repair Procedure

Repair coating film defects at the earliest practicable time and before application of the succeeding coat. In areas where coating defects are found, such as runs, drips, sags, overspray as well as excessive coating thickness hand sand in a linear fashion to remove defect using 120-200 grit wet/dry sandpaper, remove all dust, and solvent wipe with a clean rag. Brush apply a coat in the repaired area. For procedure for holiday repairs refer to UFGS 09 97 13.15 section 3.10.5.

5. For recoat times refer to top of this page in storage and installation section. If coating exceeds this time period, refer to Section 3.10.1.2 of UFGS-09 97 13.15 GLOSS REMOVAL.
6. Always wear gloves when using this product. Cleaning Solvent: MEK or Xylene.

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