TNEMEC

PRODUCT DATA SHEET

EPOXOLINE® SERIES FC22

PRODUCT PROFILE

GENERIC DESCRIPTION Modified Polyamine Epoxy

COMMON USAGE An advanced generation, 100% solids epoxy liner for the protection of steel and concrete. It provides excellent resistance to abrasion and is suitable for immersion and chemical contact. For use on the interior and exterior of steel or concrete tanks, reservoirs, and pipes in potable water service.

COLORS WH08 White. **Note:** Epoxies chalk with extended exposure to sunlight. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause yellowing to occur.

FINISH Semi-Gloss

SPECIAL QUALIFICATIONS Certified by **NSF International** in accordance with **NSF/ANSI Std. 61.** Ambient air cured Series FC22 is qualified for use on tanks and reservoirs of 5 gallons (18.9 L) capacity or greater and pipes and valves 1/2 inch (1.2 cm) in diameter or greater. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT. Conforms to **AWWA D 102 Inside System No. 3.** Conforms to **AWWA C 210.** Contact your Tnemec representative for systems and additional information.

COATING SYSTEM

SURFACER/FILLER/PATCHER Series 215, 218

PRIMERS Self-priming or Series 1, 91-H_2O, 94-H_2O, L140, L140F, N140, N140F, V140, V140F

SURFACE PREPARATION

STEEL **Non-Immersion Service:** SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 3.0 mils for dry film thicknesses at 16.0 to 20.0 mils.
Immersion Service: SPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 3.0 mils for dry film thicknesses at 20.0 mils or greater.
Note: When self-priming on steel, a minimum angular anchor profile of 3.0 mils is required. For all other applications, refer to the primer data sheet for recommendations.

CONCRETE Allow new cast-in-place concrete to cure a minimum of 28 days at 75°F (24°C). Verify concrete dryness in accordance with ASTM F 1869 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride" (moisture vapor transmission should not exceed three pounds per 1,000 square feet in a 24 hour period), F 2170 "Standard Test Method for Determining Relative Humidity in Concrete using in situ Probes" (relative humidity should not exceed 80%), or D 4263 "Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method" (no moisture present). Prepare concrete surfaces in accordance with NACE No. 6/SSPC-SP13 Joint Surface Preparation Standards and ICRI Technical Guidelines. Abrasive blast, shot-blast, water jet or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide a minimum ICRI-CSP 5 surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.

ALL SURFACES Must be clean, dry and free of oil, grease, chalk and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 100% (mixed)

RECOMMENDED DFT 16.0 to 40.0 mils (405 to 1015 microns) in a one coat application. **Note:** Thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

CURING TIME

Temperature	To Handle	Max to Recoat	Immersion
110°F (43°C)	1 hour	7 days	16 hours
75°F (24°C)	6 hours	7 days	24 hours
35°F (2°C)	12 hours	7 days	48 hours

Note: These times are based on a 20.0 mil (500 micron) dry film thickness. Curing time varies with surface temperature, air movement, humidity and film thickness. **Ventilation:** When used as a tank lining or in enclosed areas, provide adequate ventilation during application and cure.

VOLATILE ORGANIC COMPOUNDS EPA Method 24 **Unthinned:** 0.04 lbs/gallon (5 grams/litre)

THEORETICAL COVERAGE 1,604 mil sq ft/gal (39.4 m²/L at 25 microns.) See APPLICATION for coverage rates.

NUMBER OF COMPONENTS Two: 1 (Part A amine) to 2 (Part B epoxy)

PACKAGING

	PART A	PART B	When Mixed
Large Kit	1-5 gallon pail	2-6 gallon pails	15 gallons (56.78 L)
Touch-Up Kit (1 tube)	2 ounces	4 ounces	6 ounces (175 mL)

Note: Touch-Up Kit consists of six (6) tubes along with twelve (12) disposable static mixers.

NET WEIGHT PER GALLON 13.36 ± 0.25 lbs (6.06 ± .11 kg) (mixed)

STORAGE TEMPERATURE Minimum 20°F (-6°C) Maximum 110°F (43°C)
For optimal handling and application characteristics, both material components should be stored at a minimum of 70°F (21°C) or higher for 48 hours prior to use.

TEMPERATURE RESISTANCE (Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

SHELF LIFE 12 months at recommended storage temperature.

FLASH POINT - SETA Part A and Part B: N/A

HEALTH & SAFETY

This product contains chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m²/Gal)
Minimum	16.0 (405)	16.0 (405)	100 (9.3)
Maximum	40.0 (1015)	40.0 (1015)	40 (3.7)

Allow for overspray and surface irregularities. Film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT.

MIXING

Large Kit: Agitate Parts A & B making sure no pigment remains on the bottom of the can. **DO NOT MIX PART A WITH PART B.** Use a 1 (Part A amine) to 2 (Part B epoxy) mix ratio heated plural component airless spray unit. **Note:** Product component A (amine) must be heated to 110°F to 120°F (43°C to 49°C) and component B (epoxy) must be heated to 120°F to 130°F (49°C to 54°C) prior to and during plural component application. Do not heat component A (amine) above 120°F (49°C) or component B (epoxy) above 130°F (54°C). Prior to use: Keep containers tightly sealed.

Touch-Up Kit: Equipment: A dispensing gun with a thrust ratio of 26:1 is required (F100-TKAP). Material tube must be used in conjunction with provided disposable static mixer in order to ensure proper mixing.
Usage: Unscrew retaining ring and remove plug. Save plug in case entire tube is not used. Install static mixing element, replace retaining screw ring, and install tube in gun. Point assembly up and slowly pull the trigger to de-air the mixer. Dispense approximately 1 fluid ounce of material to waste and continue to pump until material is of uniform color with the Part A completely blended with the Part B. Use a putty knife or spatula to ensure adequate coverage and mixing.

For complete instructions on application, please refer to the Series FC22 Plural Component Equipment Recommendations Guide and the Series FC22 Surface Preparation & Application Guide.

THINNING

DO NOT THIN.

PURGE TIME

Less than one minute.

APPLICATION EQUIPMENT

HEATED PLURAL COMPONENT AIRLESS EQUIPMENT ONLY. Please refer to the Series FC22 Plural Component Equipment Recommendations Guide for complete instructions on equipment.
Contact Tnemec Technical Service for equipment recommendations.
Brush: Recommended for small areas, repairs and weld seams.

SURFACE TEMPERATURE

Minimum 35°F (2°C) Maximum 130°F (54°C)
The surface should be dry and at least 5°F (3°C) above the dew point. The coating will not cure below minimum surface temperature. **Note:** Do not apply when humidity exceeds 80%. Dehumidification equipment is recommended if humidity exceeds 80%.

HOLIDAY TESTING

If required by the project specifications, holiday testing should be performed in accordance with NACE SP0188. Refer to the Series FC22 Surface Preparation & Application Guide for voltage recommendations and curing parameters prior to testing.

CLEANUP

Flush and clean all equipment immediately after use with Tnemec No. 4 Thinner. Use No. 74 Thinner when needed to meet local VOC regulations.