



POTA-POX® (FAST CURE) SERIES FC20

PRODUCT PROFILE

GENERIC DESCRIPTION Polyamide Epoxy

COMMON USAGE Fast-curing protective coating for use in steel and concrete potable water storage facilities. Contact your Tnemec representative for other systems and additional information on potential uses.

COLORS 1211 Red, 1255 Beige, 00WH White, 15BL Tank White, 39BL Delft Blue.
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.

SPECIAL QUALIFICATIONS Certified by **NSF International** in accordance with **ANSI/NSF Std. 61** for use on the interior of potable water storage tanks and reservoirs of 6,000 gallons (22,710 L) capacity or greater. Reference Tnemec's certified product listing at www.nsf.org for details on the maximum allowable DFT.

Conforms to **AWWA D 102 Inside Systems No. 1 and No. 2**. Contact your Tnemec representative for approved systems and additional information on potential uses.

COATING SYSTEM

SURFACER/FILLER/PATCHER Series 215

PRIMERS Self-priming or Series 1, 20, 91-H₂O, 94-H₂O, N140, N140F.

TOPCOATS **Interior:** Series 20, FC20, 22, 141, N140, N140F, 264, 265
Exterior: Series 20, FC20, 22, 27WB, 30, 66, L69, L69F, N69, N69F, V69, V69F, 72, 73, 104, 118, N140, N140F, V140, V140F, 141, 161, 700, V700, 701, V701, 1026, 1028, 1029, 1074, 1074U, 1075, 1075U, 1094, 1095, 1096, 1224. **Note:** When topcoating with Series 700, V700, 701 or V701, an intermediate coat of Series 73, 1075, 1075U, 1095 or 1096 is required. **Note:** A maximum recoat time may apply depending on the topcoat specified.

SURFACE PREPARATION

STEEL **Immersion Service:** SSPC-SP10/NACE 2 Near-White Blast Cleaning or ISO Sa 2 1/2 Very Thorough Blast Cleaning with a minimum angular anchor profile of 1.5 mils.
Non-Immersion Service: SSPC-SP6/NACE 3 Commercial Blast Cleaning or ISO Sa 2 Thorough Blast Cleaning with a minimum angular anchor profile of 1.5 mils. **Note:** Commercial Blast Cleaning generally produces the best coating performance for this exposure. If conditions will not permit this, in moderate exposures Series FC20 may be applied to SSPC-SP2 or SP3 Hand or Power Tool Cleaned surfaces (SSPC Rust Grade Condition C).

CAST/DUCTILE IRON All external surfaces of ductile iron pipe and fittings shall be delivered to the application facility without asphalt or any other protective lining on the exterior surface. All oils, small deposits of asphalt paint, grease, and soluble deposits should be removed and uniformly abrasive blasted using angular abrasive in accordance with NAPF 500-03-04: External Pipe Surface condition. When viewed without magnification, the exterior surfaces shall be free of all visible dirt, dust, loose annealing oxide, rust, mold coating and other foreign matter. Any area where rust reappears before application shall be reblasted. The surface shall contain a minimum angular anchor profile of 1.5 mils (38.1 microns) (Reference NACE RP0287 or ASTM D 4417, Method C).

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 an ICRI-CSP 2-3 surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.

PRIMED SURFACES **Immersion Service:** Scarify the Series FC20 prime coat surface by abrasive-blasting with fine abrasive before topcoating if: (a) the Series FC20 prime coat has been in exterior exposure for 60 days or longer and Series 20, FC20, L69, L69F, N69, N69F, V69, V69F, L140, L140F, N140, N140F, V140, V140F or 161 is the specified topcoat; (b) the Series FC20 prime coat has been in exterior exposure for 7 days or longer and Series 264 or 265 is the specified topcoat.

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

TECHNICAL DATA

VOLUME SOLIDS 58.0 ± 2.0% (mixed) †

RECOMMENDED DFT 2.0 to 6.0 mils (50 to 150 microns) per coat. **Note:** Dry film thickness that exceeds published recommendations but is in compliance with SSPC PA-2 and ANSI/NSF Std. 61 certifications, is acceptable. **Note:** Number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

CURING TIME

Temperature	To Touch	To Handle	To Recoat	Immersion
75°F (24°C)	1 hour	2 hours	3 hours	6 days
65°F (18°C)	2 hours	4 hours	5-6 hours	8 days
55°F (13°C)	3-4 hours	6-8 hours	10-12 hours	12 days
45°F (7°C)	6-7 hours	12-14 hours	16-18 hours	20 days
35°F (2°C)	8-10 hours	16-18 hours	20-22 hours	25 days

Curing time varies with surface temperature, air movement, humidity and film thickness.

VOLATILE ORGANIC COMPOUNDS **Unthinned:** 2.94 lbs/gallon (352 grams/litre)
Thinned 10%: 3.30 lbs/gallon (395 grams/litre) †

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THEORETICAL COVERAGE 930 mil sq ft/gal (22.8 m²/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS Two: Part A and Part B

PACKAGING

	Part A	Part B	Yield (mixed)
Large Kit	5 gallon pail	5 gallon pail	10 gallons (37.9 L)
Small Kit	1 gallon can	1 gallon can	2 gallons (7.56 L)

NET WEIGHT PER GALLON 12.50 ± 0.25 lbs (5.7 ± .11 kg) (mixed) †

STORAGE TEMPERATURE Minimum 20°F (-7°C) Maximum 110°F (43°C)

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

SHELF LIFE Part A: 24 months; Part B: 12 months at recommended storage temperature.

FLASH POINT - SETA Part A: 82°F (28°C) Part B: 64°F (18°C)

HEALTH & SAFETY Paint products contain 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 (m ² /Gal)
Suggested	4.0 (100)	7.0 (180)	232 (21.6)
Minimum	2.0 (50)	3.5 (90)	465 (43.3)
Maximum	6.0 (150)	10.5 (265)	155 (14.4)

Note: Roller or brush application requires two or more coats to obtain recommended film thickness. 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 NSF website at www.nsf.org for details on the maximum allowable DFT. †

MIXING

Power mix contents of each container, making sure no pigment remains on the bottom. Pour a measured amount of Part B into a clean container large enough to hold both components. Add an equal volume of Part A to Part B while under agitation. Continue agitation until the two components are thoroughly mixed. Do not use mixed material beyond pot life limits. **Note:** Both components should be above 50°F (10°C) prior to mixing. For application to surfaces between 35°F to 50°F (2°C to 10°C), allow mixed material to stand thirty (30) minutes and restir before using. For optimum application properties, blended components should be above 60°F (16°C).

THINNING

Use No. 4 Thinner. For air spray, thin up to 10% or 3/4 pint (380 mL) per gallon. For airless spray, roller or brush, thin up to 5% or 1/4 pint (190 mL) per gallon. **Caution: Series FC20 NSF certification is based on thinning with No. 4 Thinner. Use of any other thinner voids ANSI/NSF Std. 61 certification.**

POT LIFE

16 hours at 35°F (2°C) 2 hours at 77°F (25°C) 1/2 hour at 100°F (38°C)

APPLICATION EQUIPMENT

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	50-80 psi (3.4-5.5 bar)	10-20 psi (0.7-1.4 bar)

Low temperatures or longer hoses require higher pot pressure.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.019" (380-485 microns)	1800-3000 psi (124-207 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Plural Component Spray: Contact your Tnemec representative or Tnemec Technical Services.

Roller: Roller application optional when environmental restrictions do not allow spraying. Use 3/8" or 1/2" (9.5 mm to 12.7 mm) synthetic woven nap covers.

Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE

Minimum 35°F (2°C) Maximum 135°F (57°C)

The surface should be dry and at least 5°F (3°C) above the dew point. Coating won't cure below minimum surface temperature.

CLEANUP

Flush and clean all equipment immediately after use with the recommended thinner or MEK.

† Values may vary with color.

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