



# MAT-REINFORCED EPOXY LINING SERIES 215ML

PRODUCT DATA SHEET

## PRODUCT PROFILE

**GENERIC DESCRIPTION** Modified Polyamine Epoxy

**COMMON USAGE** Series 215ML is a trowel applied, fiberglass mat reinforced, 100% solids polyamine epoxy used as part of a lining system for potable and non-potable ultra-filtration membrane process, backwash, and neutralization basins.

**COLORS** 1200 White, 1212 Gray

**SPECIAL QUALIFICATIONS** Certified by **NSF International** in accordance with **NSF/ANSI Std. 61**. Ambient cured Series 215 is qualified for use on the interior of potable water storage tanks and reservoirs of 200 gallons (757 L) capacity or greater at 95 mils DFT with fiberglass mat. Return to immersion is seven days. Contact your Tnemec representative for approved systems and additional information on potential uses.

## COATING SYSTEM

**SURFACER/FILLER/PATCHER** Self-patching or Series 217, 218

**PRIMERS** **Concrete:** Series L140F, N140F, V140F. **Note:** Series L140F, N140F, and V140F have a maximum recoat time of 7 days when topcoating with Series 215ML. If the maximum recoat time is exceeded, the coating surface must be uniformly scarified by abrasive blasting with fine abrasive before application of Series 215ML.

**REINFORCEMENT** Series 211-0215

**SATURANT** Series 22

**TOPCOATS** Series 22

## SURFACE PREPARATION

**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** 60.0 to 80.0 mils (1524 to 2032 microns)

**CURING TIME**

Temperature	To Touch	Dry Through	Maximum to Recoat ‡
95°F (35°C)	4 hours	12 hours	14 days
75°F (24°C)	10 hours	24 hours	21 days
55°F (13°C)	18 hours	48 hours	21 days
45°F (7°C)	24 hours	72 hours	21 days
35°F (2°C)	32 hours	96 hours	21 days

‡ **Note:** If the Series 215ML surface is exterior exposed for more than seven days, scarification is required before topcoating.

**VOLATILE ORGANIC COMPOUNDS** **Unthinned:** 0.08 lbs/gal solids (10 grams/litre) †

**HAPS** **Unthinned:** 0.0 lbs/gal solids

**THEORETICAL COVERAGE** 1,604 mil sq ft/gal (39.4 m<sup>2</sup>/L at 25 microns). See APPLICATION for coverage rates. †

**NUMBER OF COMPONENTS** Three: Liquids Part A (amine), Part B (epoxy), Fiberglass Reinforcing Mat Part C (S211-0215).

	PART A	PART B	When Mixed
Large Kit	3 gal. pail (partial fill)	5 gal. pail (partial fill)	4 gallons (15L)
Small Kit	1 gallon can	3 gal. pail (partial fill)	2 gallons (7.5L)
Touch-Up Kit	1 quart can	1 quart can	1/2 gallon (1.89L)

The fiberglass reinforcing mat (S211-0215) is ordered separately from liquids and is calculated per sq ft based on a 38 in x 500 ft (1583 sq ft) roll. Available in full rolls only.

**NET WEIGHT PER GALLON** 13.28 ± 0.25 lbs (6.02 ± .11 kg) (mixed) †

**STORAGE TEMPERATURE** Minimum 20°F (-6°C) Maximum 110°F (43°C)  
Prior to application, the material temperature should be between 70°F and 80°F (21°C and 27°C). It is suggested the material be stored at these temperatures at least 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

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**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**

Before commencing, obtain and thoroughly read the Series 215ML/22 Fiber Reinforced System Installation and Application Guide.

	Wet MILS (Microns)	Dry MILS (Microns)	Sq Ft /Gal (m2/Gal)
Base Coat	60.0 - 80.0 (1524 - 2032)	60.0 - 80.0 (1524 - 2032)	27 - 20 sq ft (2.5 - 1.9 m <sup>2</sup> )

Allow for surface irregularities and waste. Application of coating below minimum or above maximum recommended dry film thickness may adversely affect coating performance.

**MIXING**

Mix the entire contents of Part A and Part B separately. Scrape all of the Part A material from the pail and into the Part B container by using a flexible spatula. Use a variable speed drill with a PS Jiffy blade and mix the blended components for a minimum of two minutes. Apply the mixed material within the pot life limits after agitation. **Note:** Tnemec Series 211-0211 fumed silica may be added at 0.75:1 by volume per mixed gallon where a thicker consistency is required to achieve the desired application and film build properties. Mix with Part A as directed in Mixing Instructions. Multiple lifts may be required. A large volume of material will gel quickly if not applied or reduced in volume.

**Caution: Do not reseat mixed material. An explosion hazard may be created.**

**THINNING**

DO NOT THIN.

**POT LIFE**

45 minutes at 70°F (21°C) 25 minutes at 90°F (32°C)  
 Material temperatures above 90°F (32°C) will significantly reduce the pot life.

**APPLICATION EQUIPMENT**

Mortar hawk, trowels, broad knives and rubber floats are recommended. Series 215ML can also be spray transferred using spray texture gun equipment.

**Spray Application Equipment**

Pump	Fluid Line	Spray Gun	Fluid Tips	Fluid Pressure	Atomizing Pressure	Hopper
WIWA 410 9:1 Ratio	25' 1" Diameter 10' 3/4" Diameter	WIWA Pole Gun	1/4" to 3/8"	180 to 360 psi (Adjust as necessary)	Adjust at gun for proper atomization	6.5 Gallons Stainless Steel
Graco 45:1, 56:1, X50, X60	3/8" to 1/2" I.D.	XTR-7	0.031"-0.041"	3500-4500 psi	N/A	6.5 Gallons Stainless Steel
Graco M680 10:1 Ratio	25' 1" Diameter 10' 3/4" Diameter	Flex Hose	No. 5 Nozzle	200 psi (Adjust as necessary)	Adjust at gun for proper atomization	10 Gallons Stainless Steel
Graco M680 10:1 Ratio	25' 1" Diameter 10' 3/4" Diameter	HTX	4C Fine Finish	250 psi (Adjust as necessary)	Adjust at gun for proper atomization	10 Gallons Stainless Steel

Cart mounted 9:1 ratio, air operated pump with air filter, regulator and lubricator, air control manifold, fluid outlet drain with drain valve and control air hose assembly. Refer to the operation manual for application instructions. Air requirements 80 CFM at 100 psi. **Atomization air must be dry, the use of an after cooler is recommended.**

**SURFACE TEMPERATURE**

Minimum 35°F (2°C), maximum 130°F (54°C). The surface temperature should be at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature. To minimize outgassing, concrete temperature should be stabilized or in a descending temperature mode and the concrete primed with a suitable epoxy primer.

**MATERIAL TEMPERATURE**

Prior to application, the material temperature should be between 70°F and 80°F (21°C and 27°C). It is suggested the material be stored at these temperatures at least 48 hours prior to use. Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten pot life.

**CLEANUP**

Flush and clean all equipment immediately after use with xylene, MEK, or when required by SCAQMD regulations, No. 74 Thinner.

† Values may vary with color.

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