



DECO-TREAD SERIES N222

PRODUCT PROFILE

GENERIC DESCRIPTION	Modified Polyamine Epoxy
COMMON USAGE	A low ambering, multi-purpose epoxy floor coating with enhanced UV stability and resistance to yellowing. Series N222 can be used as a primer, broadcast, slurry/broadcast, mortar, grout coat, metallic color coat, and topcoat. It provides excellent application properties with good flow and self-leveling characteristics. It protects concrete surfaces from impact and abrasion and has excellent chemical resistance with an aesthetically pleasing appearance. Series N222 replaces Series 237 Power-Tread.
COLORS	Clear or pigmented. Can be factory or field-tinted (Series 820 Field Tint) in 16 StrataShield colors and certain custom colors. Contact your Tnemec representative for additional information. Decorative Quartz is available in 16 standard colors, refer to the StrataShield Decorative Quartz Color card for more information. Custom colors are also available. Note: Epoxies chalk and yellow with age, extended exposure to UV, and artificial lighting. 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 amine blush, possibly affecting adhesion of subsequent topcoats.
FINISH	Gloss. Decorative quartz—multi-colored appearance. The finished appearance and texture depend on the type, film thickness, and the number of clear finish coats selected.
SPECIAL QUALIFICATIONS	Series N222 meets the requirements of LEED-Low-Emitting Materials, Collaborative for High-Performance Schools-Paints & Coatings, WELL Building Standard-VOC Restrictions, and Living Building Challenge-Healthy Interior Performance. Contact your Tnemec representative for more information.

COATING SYSTEM

SURFACER/FILLER/PATCHER	Series 206, 215, or the following products mixed with fumed silica: Series 201, N222. Note: A repair kit of 201 with Part C fumed silica (S201-0001-TK) is available for small patching/surfacing repairs. For more extensive repairs and additional information, contact your Tnemec representative or Tnemec Technical Services.
PRIMERS	Concrete: Self-priming or Series 201, 208, N222FC, 233, N241.
TOPCOATS	Series N222, N222FC, 230ESD, 233, 247, 248, 249ESD, 256, 257, 280, 280FC, 281, 282, N284, N285, 286, V290, V295, 296, 297. Note: If Series 247, 248, 249ESD, N285, V290, V295, 296, or 297 is selected for the finish coat over a broadcast or mortar system, an intermediate coat of Series N222 or N284 is required. Note: Series N222 must be broadcast to refusal with silica sand, colored quartz, or flake prior to topcoating with Series 256 or 257.

SURFACE PREPARATION

CONCRETE	<p>Prepare surfaces by method suitable for exposure and service. Refer to the appropriate primer data sheet for specific recommendations.</p> <p>Allow new poured-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). Note: The testing listed above cannot guarantee avoidance of future moisture related problems particularly with existing concrete slabs. This is especially true if the use of an under slab moisture vapor barrier cannot be confirmed or concrete contamination from oils, chemical spills, unreacted silicates, chlorides or Alkali Silica Reaction (ASR) is suspected.</p> <p>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 3 or greater surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer. Note: For moisture content exceeding 3 lbs per 1,000 sq ft or relative humidity in excess of 80%, Series 208 or N241 may be substituted for the primer. Refer to the Series 208 or N241 product data sheet for more information.</p>
ALL SURFACES	Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS	100% (mixed)
RECOMMENDED DFT	<p>Primer: 6.0 to 12.0 mils (150-305 microns) per coat.</p> <p>Broadcast: 1/16" to 1/8" (double broadcast or slurry broadcast required to achieve 1/8")</p> <p>Mortar: 3/16" to 1/4" (minimum of 1/8", maximum of 1")</p> <p>Grout coat: 8.0 to 16.0 mils (203 to 406 microns)</p> <p>Intermediate or Topcoat: 8.0 to 16.0 mils (203 to 406 microns)</p>

CURING TIME	Temperature	To Topcoat/Broadcast	To Place in Service
	75°F (24°C)	12 to 72 hours	24 hours

Note: If more than 72 hours have elapsed between coats, the coated surface must be mechanically abraded before topcoating. **Note:** There is no maximum recoat time if aggregate has been broadcast to refusal into the preceding coat. Curing time varies with surface temperature, air movement, humidity, and film thickness.

VOLATILE ORGANIC COMPOUNDS	Unthinned: 0.13 lbs/gallon (15 grams/litre)
THEORETICAL COVERAGE	1,604 mil sq ft/gal (39.4 m ² /L at 25 microns). See APPLICATION for coverage rates.
NUMBER OF COMPONENTS	Two Liquids: Part A and Part B (2 Parts A to 1 Part B by volume). Colored Quartz: Series N222 Part C colored quartz (ChromaQuartz) is available from Tnemec or can be purchased from a different supplier. Optional Field Colorant: Series 820

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PACKAGING

	Part A	Part B	Yield (mixed)
Extra Large Kit	Two 55-gallon drums	55 gallon drum	165 gallons (624.5 L)
Large Kit	Two 5-gallon pails	5 gallon pail	15 gallons (56.7 L)
Small Kit	Two 1-gallon cans	1 gallon can	3 gallons (11.3 L)

Broadcast Application: For decorative quartz broadcast or slurry/broadcast applications, use Tnemec Series N222 Part C (ChromaQuartz - 50 lb bag) or approved equal. For non-decorative applications, purchase clean, dry, bagged 4.0 (30/50 mesh) Flint Shot, silica sand, or approved equal. The aggregate is calculated at one-half pound per sq ft (2.4 kg/m²) per 1/16" broadcast application or one pound per sq ft (4.8 kg/m²) for a 1/8" double broadcast. Additional aggregate is required to accommodate for waste or loss during application or to make coving material.

Mortar Application: For decorative mortar applications, use Tnemec Series N223 Part C (ChromaQuartz - 50 lb bag) or approved equal. For non-decorative applications, use S237-0301C mortar aggregate or approved equal. The N223 Part C and S237-0301C is based on a nominal amount calculated at 60-80 lbs. per gallon when mixed or a 6.5 to 1 - 9.0 to 1 (rock to resin) ratio by weight. Mortar aggregate purchased from Tnemec is packaged in 50 lb. bags.

Colorant: Series 820 field-applied colorants are available in quart and gallon containers from Tnemec in 16 StrataShield colors and certain custom colors. Colorants should be added at 4 oz. to 8 oz. per gallon of mixed clear liquids for intermediate or base coats and up to 8 oz. per gallon for finish coats. **Note:** Color consistency and hiding may vary based on the color selected and the amount of colorant used.

NET WEIGHT PER GALLON

9.18 ± 0.25 lbs (4.16 ± 0.11 kg) mixed

STORAGE TEMPERATURE

Minimum 40°F (4°C) Maximum 90°F (32°C)
Prior to application, the material temperature should be between 70°F and 90°F (21°C and 32°C).

TEMPERATURE RESISTANCE

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

SHELF LIFE

12 months at recommended storage temperature.

FLASH POINT - SETA

>230°F (110°C)

HEALTH & SAFETY

This product contains chemical ingredients which are considered hazardous. Read container label warning and 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

Primer: 6.0 to 12.0 dry mils (150 to 305 microns) 6.0 to 12.0 wet mils (150-305 microns) 134-267 sq. ft/gal (12.2-24.3 m²)
Broadcast Application: The mixed liquids (Part A and B) are spread at a rate of 80 sq ft (7.4 m²) per gallon or approximately 20 mils (510 microns) wet. The aggregate is then broadcast into the liquid until a uniformly dry appearance is obtained. Each broadcast layer will result in a thickness of approximately 1/16" (1.6 mm). After the first broadcast layer cures, the excess aggregate must be removed and a second application repeated to obtain an approximate thickness of 1/8" (3.2 mm).

Mortar Application: The mixed liquids (Part A and B) and aggregate (Part C) are spread at a rate of approximately 25 to 35 sq ft per gallon at a thickness of 3/16" to 1/4" based on a 6.5 to 1 - 9.0 to 1 rock to resin ratio by weight. **Note:** Drier mixes typically used for power trowel application should be grouted prior to finish coating. Allow for surface irregularities. Film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below the minimum or above maximum recommended dry film thicknesses may adversely affect coating performance.

Grout coat: 8.0 to 16.0 dry mils (203 to 406 microns) 8.0 to 16.0 wet mils (203 to 406 microns) 100-201 sq. ft/gal (9.3-18.6 m²).

Intermediate or Topcoat: 8.0 to 16.0 dry mils (203 to 406 microns) 8.0 to 16.0 wet mils (203 to 406 microns) 100-201 sq. ft/gal (9.3-18.6 m²).

MIXING

Use a variable speed drill with a PS Jiffy blade. Slowly mix 2 parts A component, and while under agitation add 1 part B component and mix for a minimum of two minutes. Ensure that all Part B is blended with Part A by scraping the pail walls with a flexible spatula. **Note:** When mixing mortar to include integral cant or radius cove base, use an appropriate type mortar mixer and slowly blend Part C aggregate thoroughly with properly proportioned Part A and Part B mixed liquids. The Part C aggregate is based on a nominal amount calculated at 60 to 80 lbs per gallon mixed or a 6.5 to 1 - 9.0 to 1 (rock to resin) ratio by weight is recommended. Substrate should be primed and tacky before vertical application is attempted. **Note:** A large volume of material will set up quickly if not applied or reduced in volume.

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

Field Colorant: Mix thoroughly using a variable speed drill with a PS Jiffy blade at a rate of 4 oz. to 8 oz. per gallon of mixed liquids.

THINNING

Normally not required. May thin up to 5% with No. 2 Thinner as needed.

POT LIFE

25 to 30 minutes at 75°F (24°C)
Material temperatures above 90°F (32°C) will significantly reduce the pot life.

APPLICATION EQUIPMENT

Primer, Grout, Intermediate or Topcoat: Brush, roller, squeegee, trowel. Brush small areas only.
Broadcast, slurry broadcast: Roller, squeegee, trowel
Mortar: Screed, hand or power trowel

SURFACE TEMPERATURE

Minimum of 55°F (13°C), optimum 65°F to 80°F (18°C to 27°C), maximum of 90°F (32°C). The substrate temperature should be at least 5°F (3°C) above the dew point. To avoid outgassing, concrete temperature should be stabilized or in a descending temperature mode. Material should not be applied in direct sunlight.

MATERIAL TEMPERATURE

For optimum application, handling and performance, the material temperature during application should be between 70°F and 90°F (21°C and 32°C). 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 or MEK.

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