TNEMEC

PRODUCT DATA SHEET

DECO-FLECK SERIES N224

PRODUCT PROFILE

GENERIC DESCRIPTION Decorative Flake-Filled Modified Polyamine Epoxy

COMMON USAGE A low ambering, multi-purpose epoxy coating with enhanced UV stability and resistance to yellowing. Series N224 is a customized decorative floor topping utilizing colored flake, broadcast either at random or refusal. It protects concrete surfaces from impact and abrasion and has excellent chemical resistance with an aesthetically pleasing appearance.

COLORS Supplied as a clear coat. May be field tinted with Series 820 in 16 StrataShield colors. Decorative flake is available to order in 16 standard colors. Custom colors 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 flake—multi-colored appearance, available in 1/16", 1/8" and 1/4" sizes. The finished appearance and texture depend on the type, film thickness, and the number of clear finish coats selected.

SPECIAL QUALIFICATIONS Series N224 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, N224. **Note:** A repair kit of 201 with Part C fumed silica (TK 201-0001) 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, 233, N241. **Note:** A color complimenting the flake blend should be selected.

INTERMEDIATE **Random Flake Broadcast:** Series N224, 281
Refusal Flake Broadcast: Series N224, 281

TOPCOATS **Random Flake Broadcast:** Series N224, 247, 248, N284, N285, 286, V295, 296.
Refusal Flake Broadcast: Series N224, 247, 248, 256, 257, N284, N285, 286, V295, 296.
Note: If Series 247, 248, N285, V295, or 296 is selected for the finish coat, an intermediate coat of Series 256, 257 or N284 is required. **Note:** Series 256 and 257 cannot be applied directly over Series N224. Series N224 must be broadcast to refusal with flake prior to topcoating with Series 256 or 257.

SURFACE PREPARATION

Prepare surfaces by method suitable for exposure and service. Refer to the appropriate primer data sheet for specific recommendations.

CONCRETE 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.

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.

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

TECHNICAL DATA

VOLUME SOLIDS 100% (mixed)

RECOMMENDED DFT 20 mils to 1/16" depending on broadcast method.

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 flake 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 m²/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 Flake: Series N224 Part C colored flake is available from Tnemec or can be purchased from a different supplier.

DECO-FLECK | SERIES N224

PACKAGING

	Part A	Part B	Yield (mixed)
Extra Large Kit	2-55 gallon drums	1-55 gallon drum	165 gallons (624.5 L)
Large Kit	2-5 gallon pails	1-5 gallon pail	15 gallons (56.7 L)
Small Kit	2-1 gallon cans	1-1 gallon can	3 gallons (11.3 L)

Note: Part C decorative flake is purchased from Tnemec in a 40 lb box.

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
The mixed liquids (Part A and B) are spread at a rate of 160 sq ft (3.94 m²/L) per gallon or approximately 10 mils (255 microns) wet.

Flake Size	Broadcast to Refusal	Broadcast Randomly
1/4"	5-7 SF/LB	25-250 SF/LB
1/8"	4-6 SF/LB	25-250 SF/LB
1/16"	3-5 SF/LB	25-250 SF/LB

Note: Coverage rates vary depending on application techniques.
Broadcast to Refusal: Apply the flake until no liquids are showing when rejection is achieved, the flake on top will appear dry. Spike (golf) shoes may be worn to walk into the wet surface that has not yet been broadcast. Rebroadcasting areas that "wet-out" may be required.
Broadcast Randomly: This technique provides a "speckled" appearance and allows the primer color to show through.

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.
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.
Note: A large volume of material will set up quickly if not applied or reduced in volume.
Caution: Do not reseal mixed material. An explosion hazard may be created.

THINNING
Normally not required.

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
Roller, squeegee and/or 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.