StrataShield

PRODUCT DATA SHEET

POWER-TREAD® SERIES 237

PRODUCT PROFILE

GENERIC DESCRIPTION Modified Polyamine Epoxy

COMMON USAGE A multi-purpose, broadcast, slurry broadcast or mortar applied floor topping system installed at 1/8" to 1/4" thickness. Protects against impact, abrasion and mild chemicals.

COLORS Clear or pigmented. Can be factory or field-tinted (Series 820 Field Tint) to 33GR Gray Ansi No. 61, 68BR Twine or 28RD Monterrey Tile. **Note:** Colors may not be uniform and are not intended to be finish coats—see Topcoats listed below. **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.

COATING SYSTEM

SURFACER/FILLER/PATCHER Series 63-1500, 206, 214, 218, 219. **Note:** A repair kit of 201, with Part C fumed silica, is available for small patching/surfacing repairs. For more extensive repairs and additional information, contact your Tnemec representative or Tnemec Technical Services.

PRIMERS Self-priming or Series 201

TOPCOATS Series 120, 280, 281, 282, 284, 285, 286, 287, 290, 291, 295. **Note:** If Series 290 or 291 is selected for the finish coat, an intermediate coat of Series 280, 281 or tinted 237 is required. If Series 285 or 295 is selected for the finish coat, an intermediate coat of Series 284 is required. **Note:** Drier mixes, typically used for power trowel application, should be grouted with Series 237 or 238 prior to the finish coat application.

SURFACE PREPARATION

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

CONCRETE When self priming: Allow new concrete to cure 28 days. Verify dryness by testing for moisture with a "plastic film tape-down test." (Reference ASTM D 4263) Should moisture be detected, perform "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride." (Reference ASTM F 1869) Moisture content not to exceed three pounds per 1,000 sq ft in a 24 hour period. Shot-blast or mechanically abrade to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide surface profile. Large voids, bugholes and other cavities should be filled with recommended filler or surfacer. (Reference SSPC-SP13, ICRI CSP3-9)

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

TECHNICAL DATA

VOLUME SOLIDS 100% (mixed)

RECOMMENDED DFT **Primer:** 6.0 to 12.0 (150-305 microns) per coat.
Broadcast: Minimum 1/8". Requires two broadcast applications at 1/16" each or applied as a slurry broadcast.
Mortar: Suggested 1/4" (Minimum of 3/16", Maximum of 1")

CURING TIME

Temperature	To Topcoat	Place in Service
75°F (24°C)	8 to 24 hours	12 to 24 hours

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

VOLITILE ORGANIC COMPOUNDS Parts A & B: 0.25 lbs/gallon (30 grams/litre) Parts A, B & C: N/A

HAPS 0.0 lbs/gal solids

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

NUMBER OF COMPONENTS Liquids–Two: Part A and Part B (2 parts A to 1 part B by volume)
Aggregate–One: Part C (optional) Field Colorant–One: (optional) (Series 820)
The Part C aggregate for mortar applications is available from Tnemec or can be purchased from an approved supplier.

PACKAGING

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

Broadcast Application: For broadcast or slurry/broadcast applications purchase clean, dry, bagged 4.0 (30/50 mesh) Flint Shot, silica sand or approved equal. Tnemec ChromaQuartz or approved equal can be substituted for decorative quartz applications. The aggregate is calculated at one-half pound per sq ft
(2.4 kg/m²) per broadcast application or one pound per sq ft (4.8 kg/m²) for a double broadcast. Additional aggregate is required to accommodate for waste or loss during application or to make coving material.
Mortar Application: The Part C mortar aggregate 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. Part C 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 three standard colors (33GR Gray, 68BR Twine, 28RD Monterrey Tile). Colorants should be added at 4 oz. to 6 oz. per gallon of mixed clear liquids. **Note:** color consistency and hiding may vary based on the color selected and amount of colorant used.

NET WEIGHT PER GALLON 8.86 ± 0.25 lbs (mixed)

STORAGE TEMPERATURE Minimum 50°F (10°C) Maximum 90°F (32°C)
Material should be stored at temperatures between 70°F and 90°F (21°C and 32°C) for 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 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 Before commencing, obtain and thoroughly read the StrataShield Installation and Application Guide for floors.

Primer: 6.0-12.0 dry mils (150-305 microns) 6.0-12.0 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. After the first broadcast layer cures, forming a thickness approximately 1/16" (1.6mm) thick, the excess aggregate is removed and a second application is repeated to obtain a minimum thickness of 1/8" (3.2mm).
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 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 minimum or above maximum recommended dry film thicknesses may adversely affect coating performance.

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: 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.
Field Colorant: Mix thoroughly using a variable speed drill with a PS Jiffy blade at a rate of 4 oz. to 6 oz. per gallon of mixed liquids.
Aggregate: 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.

THINNING Do not thin.

POT LIFE 30 to 35 minutes at 75°F (24°C)
Material temperatures above 90°F (32°C) will significantly reduce the pot life.

APPLICATION EQUIPMENT **Primer:** Brush, roller, squeegee, trowel. Brush small areas only.
Broadcast, slurry broadcast: Roller, squeegee, trowel
Mortar: Screed, hand or power trowel
Note: For detailed instructions, refer to the StrataShield Installation and Application Guide for floors.

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. Coating will not cure below minimum surface temperature.

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.