# PRODUCT PROFILE

## GENERIC DESCRIPTION
Modified Polyamine Epoxy

A lower viscosity, high-solids, multi-purpose epoxy that can be used as a primer, broadcast, slurry/broadcast, mortar, grout coat, and topcoat. Especially useful when penetration is needed to sufficiently anchor epoxy flooring systems over lightly profiled concrete surfaces. Protects concrete surfaces from impact, abrasion and mild chemicals.

## COMMON USAGE
Supplied as a clear coat, may be field tinted with Series 820 in 16 StrataShield colors. Contact your Tnemec representative for additional information. Decorative Quartz is available in 12 standards colors, refer to the StrataShield Decorative Quartz Color card for more information. Custom colors are also available. **Note:** Epoxy is chalk and yellow with age, extended exposure to UV and artificial lighting. Lack of ventilation, incomplete mixing, miscaltivation or the use of heaters that emit carbon dioxide during application and initial stages of curing may cause amine blush, possibly affecting adhesion of subsequent topcoats.

## COLORS
Series 235 was tested in accordance with, and passed, the California Dept. of Public Health (CDPH) Standard Method v1.2 and meets the requirements of LEED v4.1 Low-Emitting Materials. Collaborative for High Performance Schools-Paints & Coatings, Living Building Challenge Materials Petal 10, and WELL Building Standard v2 X06 VOC Restrictions.

## SPECIAL QUALIFICATIONS
- Two: Part A and Part B (3 Parts A to 1 Part B by volume)
- 0.02 lbs/gallon (2 grams/litre)
- varies with surface temperature, air movement, humidity and film thickness.
- **Note:** There is no maximum recoat time if aggregate has been broadcast to refusal into the preceding coat.

## CURING TIME
**Intermediate or Topcoat:** Note: A 72 hour maximum recoat time applies when topcoating Series 233. **Note:** If Series 233, 247 (clear), 248 (clear), 281, 282, 284, 285, 286, 290, 291, 294, 295, 296 or 297 is selected for the finish coat over a decorative broadcast system, an intermediate coat of Series 235 (clear), 237 (clear), 238 (clear) or 284 is required. If Series 247 (tinted), 248 (tinted), 280, 281 or 297 is selected for the finish coat over a broadcast system, a grout coat of Series 233 (tinted) 237 or 238 (tinted), 280, 280FC or 281 is required.

## SURFACE PREPARATION
**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 and other contaminants and to provide an ICRI-CSP 3-5 surface profile when used as a primer for lightly profiled surfaces (ICRI-CSP 3 or greater when utilized as a decorative mortar system). Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer. **Note:** Shotblasting will leave a much heavier profile than acid etching. In this case it is recommended that a higher mil primer such as 201 be applied to help fill and smooth the surface profile of the floor. For more extensive repairs and additional information, contact your Tnemec representative or Tnemec Technical Services.

**All Surfaces**
- Must be clean, dry and free of oil, grease and other contaminants.

## COATING SYSTEM
**Surfacer/Filler/Patcher**
- Series 206, 215. **Note:** A repair kit of 201, 208 or 233 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, 208, 257, 238 or 241

**Topcoats**
- Series 206, 206SC, 208ESD, 233, 237, 257SC, 238, 247, 248, 252SC, 256, 257, 281, 280FC, 281, 282, 284, 285, 286, 290, 291, 294, 295, 296 or 297. **Note:** A 72 hour maximum recoat time applies when topcoating Series 233. **Note:** If Series 233, 247 (clear), 248 (clear), 281, 282, 284, 285, 286, 290, 291, 294, 295, 296 or 297 is selected for the finish coat over a decorative broadcast system, an intermediate coat of Series 235 (clear), 237 (clear), 238 (clear) or 284 is required. If Series 247 (tinted), 248 (tinted), 280, 281 or 297 is selected for the finish coat over a broadcast system, a grout coat of Series 233 (tinted) 237 or 238 (tinted), 280, 280FC or 281 is required.

## TECHNICAL DATA

### VOLUME SOLIDS
100% (mixed)

### RECOMMENDED DFT
- **Primer:** 3.0 to 12.0 mils (75 to 300 microns) per coat.
- **Broadcast:** 1/16” to 1/8” (Double broadcast or slurry broadcast required to achieve 1/8”) in thickness.
- **Grout coat:** 8.0 to 16.0 mils (203 to 406 microns).
- **Intermediate or Topcoat:** 8.0 to 16.0 mils (203 to 406 microns).

### CURING TIME
<table>
<thead>
<tr>
<th>Temperature (75°F (24°C))</th>
<th>To Topcoat/Broadcast</th>
<th>To Place in Service</th>
<th>Maximum Recoat</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 to 72 hours</td>
<td>24 hours</td>
<td>72 hours</td>
<td></td>
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</tbody>
</table>

**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
0.02 lbs/gallon (2 grams/litre)

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

### NUMBER OF COMPONENTS
Two: Part A and Part B (3 Parts A to 1 Part B by volume)

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Broadcast Application
Broadcast to refusal with aggregate, colored quartz or decorative flake. For broadcast or slurry/broadcast applications purchase clean, dry, huffed 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 1/16" broadcast application or one pound per sq ft (4.8 kg/m²) for a 1/8" double broadcast. Material broadcast at an approximate rate of 0.25 lb per sq ft or 4 to 5 sq ft per pound. Decorative flake is available from Tnemec or can be purchased from an aggregate supplier. Additional aggregate is required to accommodate for waste or loss during application or to make coving material. Mortar Application: The Part C mortar aggregate (S237-0301C or Series 223 Part C ChromaQuartz) is based on a nominal amount calculated at 60-80 lbs. per gallon when mixed or 6.5 to 1 to 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 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 amount of colorant used.

Keep out of the reach of children.

**APPLICATION**

**Coverage Rates**
- **Primer:** 3.0 to 12.0 dry mils (75 to 305 microns) 3.0 to 12.0 wet mils (75-305 microns) 134-555 sq. ft/gal (12.4-49.7 sq. ft/ft³)
- **Broadcast Application:** The mixed liquids (Part A and B) are spread at a rate of approximately 20 mils (510 microns) wet. The aggregate, colored quartz or decorative flake can then bond to the matrix until a uniform dry appearance is obtained. Each broadcast layer will result in a thickness of approximately 1/16" (1.6 mm). 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.

**Mixing**
Use a variable speed drill with a PS Jiffy blade. Slowly mix 3 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 to 5 oz. per gallon to achieve the desired color.

**Mortar:** Use an appropriate type of mortar mixer and slowly blend Part C aggregate thoroughly with properly proportioned Part A and B mixed liquids. The Part C colored quartz aggregate is based on a nominal amount calculated to 60 to 80 lbs per gallon when mixed or 6.5 to 1 to 9.0 to 1 (rock to resin) ratio by weight. Note: Drier mixes used for travel 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.

**GROUT COAT**
- **Intermediate or Topcoat:** 8.0 to 16.0 dry mils (203 to 406 mils) 8.0 to 16.0 wet mils (203 to 406 microns) 100-201 sq. ft/gal (9.3-18.6 m²).
- **Part A:** 230°F (110°C)  Part B: 230°F (110°C)
- **Flash Point - Seta:** (Dry) Continuous 250°F (121°C)  Intermittent 275°F (135°C)
- **SHELF LIFE:** 12 months at recommended storage temperature
- **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 (6°C) above the dew point. Coating will not cure below minimum substrate temperature. To avoid outgassing, concrete temperature should be stabilized 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.

Flush and clean all equipment immediately after use with xylene or MEK.

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