# POWER-TREAD LE SERIES 233

## PRODUCT PROFILE

### GENERIC DESCRIPTION
Modified Polyamine Epoxy

### COMMON USAGE
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.

### COLORS
Clear. Can be field-tinted (Series 820 Field Tint) in 16 StrataShield colors and certain custom colors. Contact your Tnemec representative for additional information. **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 during application and initial stages of curing may cause amine blush, possibly affecting adhesion of subsequent topcoats.

### FINISH
Gloss

### SPECIAL QUALIFICATIONS
Series 233 was tested in accordance with, and passed, the California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010 emissions testing and meets qualifications of LEED v4, Collaborative for High Performance Schools, and Living Building Challenge.

## 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, 237, 238 or 241

### TOPCOATS
Series 206, 206SC, 233, 237, 238, 247, 248, 252SC, 280, 280FC, 281, 282, 284, 285, 286, 287, 290, 291, 294, 295, 296 or 297. **Note:** If Series 233, 247 (clear), 248 (clear), 285, 294, 295 or 296 is selected for the finish coat over a decorative broadcast system, an intermediate coat of Series 233 (clear), 257 (clear), 258 (clear) or 294 is required. If Series 247 (tinted), 248 (tinted), 290, 291 or 297 is selected for the finish coat over a broadcast system, a grout coat of Series 233 (tinted) 237 or 258 (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 Probe(s)” (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 an ICRI-CSP 1-3 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.

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

## 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”). **Mortar:** 3/16” to 1/4” 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</th>
<th>To Topcoat/Broadcast</th>
<th>To Place in Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>75°F (24°C)</td>
<td>6 to 8 hours</td>
<td>16 to 24 hours</td>
</tr>
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</table>

**Note:** If more than 16 hours have elapsed between coats, the coated surface must be mechanically abraded before topcoating. Curing time varies with surface temperature, air movement, humidity and film thickness.

### VOLATILE ORGANIC COMPOUNDS
0.00 lbs/gallon (0.0 grams/litre)

### THEORETICAL COVERAGE
1,601 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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POWER-TREAD LE | SERIES 233

PACKAGING

<table>
<thead>
<tr>
<th></th>
<th>Part A</th>
<th>Part B</th>
<th>Yield (mixed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra Large Kit</td>
<td>5-55 gallon drums</td>
<td>1-55 gallon drum</td>
<td>220 gallons (832 L)</td>
</tr>
<tr>
<td>Large Kit</td>
<td>3-5 gallon pails</td>
<td>1-5 gallon pail</td>
<td>20 gallons (75 L)</td>
</tr>
<tr>
<td>Small Kit</td>
<td>3-1 gallon cans</td>
<td>1-1 gallon can</td>
<td>4 gallons (15 L)</td>
</tr>
</tbody>
</table>

Broadcast Application: Broadcast to refusal with aggregate, colored quartz or decorative flake. For broadcast or slurry/broadcast applications purchase clear, dry, bagged 4” (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 flake at an approximate rate of 6.25 lbs per sq ft or 1/4 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 covering material. 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. Warm temperatures will decrease viscosity and shorten pot life. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten pot life.

Application Equipment

- **Primer:** Use a variable speed drill with a PS Jiffy blade at a rate of 4 oz to 8 oz per gallon of mixed liquids.
- **Mortar:** Mix thoroughly with a variable speed drill using 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 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:** Do not reseal mixed material. An explosion hazard may be created. Field Colorant: Mix thoroughly with a variable speed drill with a PS Jiffy blade at a rate of 4 oz to 8 oz per gallon of mixed liquids.
- **Mortar:** Use an appropriate type of mortar and mix slowly with a large volume of material. The aggregate used in the mix should be at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature. To avoid outgassing, the concrete temperature should be stabilized or in a descending temperature mode. Material should not be applied in direct sunlight.

Application

- **Flash Point - SetA:** 9.07 +/- 0.25 lbs (4.11 +/- .11 kg) mixed
- **Flash Point - SetB:** Minimum 40°F (4°C) Maximum 90°F (32°C)

Other estimates of the relative rate of cure and the working life of the product are based on the color selected and amount of colorant used.

Waterproofing

- **Flash Point - SetA:** 9.07 +/- 0.25 lbs (4.11 +/- .11 kg) mixed
- **Flash Point - SetB:** Minimum 40°F (4°C) Maximum 90°F (32°C)

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 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 lbs (908 kg) wet per gallon. Dry aggregate may be used as required to accommodate for waste or loss during application or to make covering material.
- **Mortar:** The mixed liquids (Part A and B) are spread at a rate of approximately 25 to 55 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 used for 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 may adversely affect coating performance.
- **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. Use a variable speed drill with a PS Jiffy blade at a rate of 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.

COLORANT

- **Color Consistency:** Colorant:
- **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.

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