PRODUCT PROFILE

Aliphatic Moisture Cured Urethane

Extremely hard, chemical-resistant urethane floor coating with superb flow characteristics. Excellent resistance to abrasion, wet conditions, corrosive fumes and chemical contact. Excellent gloss and color retention. Low odor characteristic allows for use near occupied space. **Note:** For horizontal surfaces only.

**COLORS**

Supplied as a clear coat. May be tinted with available Series 821 color pack in the 16 standard StrataShield colors and limited custom colors. Color packs sold separately. Contact Tnemec Company for availability. **Note:** Certain colors may require multiple coats depending on method of application and finish color. When feasible, the preceding coat should be the same color as the topcoat. **Note:** Series 44-600 UV Blocker may be added to Series 247 (clear) for increased resistance to ultra-violet light. Refer to the Series 44-600 product data sheet for more information.

**FINISH**

Gloss

**SPECIAL QUALIFICATIONS**

Series 247 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.

**PERFORMANCE CRITERIA**

Additional test data available. Contact your Tnemec representative for specific test results.

COATING SYSTEM

**PRIMERS**

Concrete: Series 66, 66HS, 161, 161HS, 201, 205, 237, 238, 256, 280, 281, 287. **Note:** Series 247 can be applied directly to concrete if a single coat urethane sealer is desired.

**INTERMEDIATE**

Series 66, 66HS, 161, 161HS, 210, 257, 238, 256, 280, 281, 284, 285, 287

**Note:** Before applying Series 247 over coatings with a smooth, glossy surface, thoroughly scarify the previous coating using a power sander and 100 grit sandpaper, No. 60 mesh sanding screen or a coarse stripping pad to eliminate surface tension. Failing to uniformly degloss the entire surface or thoroughly clean all surface contamination may lead to fisheyes and/or poor adhesion. Sanding or scarification is not required when topcoating textured coatings (i.e. aggregate or colored quartz broadcast to refusal) with Series 247 if the maximum recoat time of the previous coating is met. **Note:** When applying Series 247 over a broadcast or mortar system, an epoxy grout coat is required.

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 Indicates Moisture in Concrete by the Plastic Vapor Barrier” (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 Indicates Moisture in Concrete by the Plastic Vapor Barrier” (moisture vapor transmission should not exceed three pounds per 1,000 square feet in a 24 hour period) or D 4263 “Standard Test Method for Indicating Moisture in Concrete by the Plastic Vapor Barrier” (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 Indicates Moisture in Concrete by the Plastic Vapor Barrier” (moisture vapor transmission should not exceed three pounds per 1,000 square feet in a 24 hour period). **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 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. Mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide a minimum ICRI-CSP 2 surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.

**ALL SURFACES**

Must be clean, dry and free of oil, grease and other contaminants. Existing coatings require thorough scarification using a power sander with 100 grit sandpaper and compatibility testing.

TECHNICAL DATA

**VOLUME SOLIDS**

91 ± 2.0% (clear mixed) †

2.0 to 3.0 mils (50 to 75 microns) per coat. **Note:** Number of coats will vary depending on color, substrate (surface) and other variables. Contact your Tnemec representative.

**RECOMMENDED DFT**

9.29 ± 0.25 lbs (4.2 ± .11 kg) (clear mixed) †

**CURING TIME**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Min. Recoat ‡</th>
<th>To Service</th>
<th>Chemical Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>75°F (24°C)</td>
<td>12 hours</td>
<td>24 hours</td>
<td>7 days</td>
</tr>
</tbody>
</table>

† When recoating, the surface must be thoroughly scarified using 60 grit sandpaper or No. 60 mesh sanding screen. Curing time varies with surface temperature, air movement, humidity and film thickness.

‡ Unthinned: 0.74 lbs/gallon (89 grams/litre) †

1,460 mil sq ft/gal (36.0 m²/L at 25 microns). See APPLICATION for coverage rates. †

** Additional test data available. Contact your Tnemec representative for specific test results.**

**THEORETICAL COVERAGE**

1,460 mil sq ft/gal (36.0 m²/L at 25 microns). See APPLICATION for coverage rates. †

**NUMBER OF COMPONENTS**

Two: Part A and Part B (clear).

**PACKAGING**

<table>
<thead>
<tr>
<th></th>
<th>PART A (Partially filled)</th>
<th>PART B</th>
<th>When Mixed Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Kit</td>
<td>3 gallon pail</td>
<td>1/2 gallon can</td>
<td>3 gallons (11.36L)</td>
</tr>
<tr>
<td>Small Kit</td>
<td>1 gallon can</td>
<td>1 pint can</td>
<td>1 gallon (3.79L)</td>
</tr>
</tbody>
</table>

Color packs are sold separately as Series 821 Field Colorant. Add one pint color pack per small kit or three pint color packages per large kit.

**NET WEIGHT PER GALLON**

9.29 ± 0.25 lbs (4.2 ± .11 kg) (clear mixed) †

Published technical data and instructions are subject to change without notice. The online catalog at www.tnemec.com should be referenced for the most current technical data and instructions or you may contact your Tnemec representative for current technical data and instructions.
STORAGE TEMPERATURE
Minimum 20°F (-7°C)     Maximum 110°F (43°C)
TEMPERATURE RESISTANCE
(Dry) Continuous 250°F (121°C)     Intermittent 275°F (135°C)
SHELF LIFE
12 months in unopened cans at recommended storage temperature.
FLASH POINT - SETA
Part A: >200°F (93°C)     Part B: 186°F (86°C)

APPLICATION
COVERAGE RATES

<table>
<thead>
<tr>
<th></th>
<th>Dry Mils (Microns)</th>
<th>Wet Mils (Microns)</th>
<th>Sq Ft/Gal (m²/Gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested</td>
<td>2.5 (65)</td>
<td>3.0 (75)</td>
<td>584 (54.3)</td>
</tr>
<tr>
<td>Minimum</td>
<td>2.0 (50)</td>
<td>2.5 (65)</td>
<td>730 (67.8)</td>
</tr>
<tr>
<td>Maximum</td>
<td>3.0 (75)</td>
<td>3.5 (87)</td>
<td>487 (45.3)</td>
</tr>
</tbody>
</table>

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
Add Part B to Part A while under agitation. Continue agitation until the two components are thoroughly mixed. If material is to be tinted, use one pint container of Series 821 color for a small kit and three pints for a large kit. Add color pack to Part A and stir thoroughly before adding Part B. Do not use mixed material beyond pot life limits. Part A is moisture-sensitive and will react with atmospheric moisture. Mix in full kits only. Opened material should not be reused. Do not seal containers of mixed material.

THINNING
None required or recommended.

POT LIFE
2 hours at 77°F (25°C)

APPLICATION EQUIPMENT
Roller: Use a 1/4" or 3/8" (6.4 mm or 9.5 mm) high quality and shed-resistant synthetic woven nap cover. Do not use long nap roller covers. Note: A 1/4" (6.4 mm) roller is recommended when applying Series 247 over a smooth or non-textured surface.

Brush: Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE
Minimum 40°F (4°C)     Maximum 90°F (32°C)
The surface should be dry and at least 5°F (3°C) above the dew point. This product is moisture sensitive until cured.

AMBIENT HUMIDITY
Minimum 20%     Maximum 80%
Humidity must be below 80%. Application of the coating above the maximum recommended dry film thickness or at relative humidities above 80% may cause bubbles or microfoaming to form in the cured film. Relative humidities below 20% will not allow the coating to properly cure.

CLEANUP
Flush and clean all equipment immediately after use with MEK.

† Values may vary with color.