PRODUCT PROFILE

GENERIC DESCRIPTION
Abrasion Resistant Novolac Vinyl Ester

COMMON USAGE
An elevated temperature service, high-build novolac vinyl ester, with a proprietary blend of abrasion resistant powders and ceramics. Series 1439 is ideal for use in high wear, high air velocity with heavy particulate suspension and on impingement areas. Series 1439 is an outstanding selection for use in abrasive slurry lining services. Formerly ProPolymer 484+4SAR.

COLORS
901 White, 908 Lavender

FINISH
Semi-gloss

COATING SYSTEM

PRIMERS
Self-priming on steel or Series 1402

INTERMEDIATE
Series 1428, 1436, 1438

TOPCOATS
Series 1439

SURFACE PREPARATION

STEEL
Immersion Service/Severe Exposure/Elevated Temperatures: SSPC SP5/ NACE No.1 White Metal Blast Cleaning or ISO Sa3 Blast Cleaning to Visually Clean with a minimum angular anchor profile of 5.0 mils (75 microns) is required. Non-Immersion Service: SSPC SP10/NACE No. 2 Near White Metal Blast Cleaning or ISO Sa 2 ½ Very Thorough Blast Cleaning with a minimum angular anchor profile of 3.0 mils (75 microns) is required.

CONCRETE
Allow new cast-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 Vapour 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). 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 5 surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer. Note: This product is most commonly used on metallic substrates, contact Tnemec Technical Services to confirm an appropriate lining selection or an alternate lining.

TECHNICAL DATA

VOLUME SOLIDS
85% (mixed). Series 1439 contains a reactive monomer and some loss will occur during application and cure. Actual solids by volume will vary depending upon temperature and air movement.

RECOMMENDED DFT
12.0 to 50.0 mils (305-1270 microns)

CURING TIME

<table>
<thead>
<tr>
<th>Temperature</th>
<th>To Recoat</th>
<th>Immersion Service</th>
<th>Maximum Recoat</th>
</tr>
</thead>
<tbody>
<tr>
<td>90°F (32°C)</td>
<td>3 hours</td>
<td>20 hours</td>
<td>3 days</td>
</tr>
<tr>
<td>75°F (24°C)</td>
<td>4 hours</td>
<td>24 hours</td>
<td>4 days</td>
</tr>
<tr>
<td>50°F (10°C)</td>
<td>12 hours</td>
<td>4 days</td>
<td>5 days</td>
</tr>
</tbody>
</table>

Note: Certain service applications may require elevated temperature cure for maximum performance.

VOLATILE ORGANIC COMPOUNDS
EPA Method 24

NUMBER OF COMPONENTS
Two: Part A (base) and Part B (catalyst)

PACKAGING

<table>
<thead>
<tr>
<th>Medium kit</th>
<th>Part A (Partially filled)</th>
<th>Part B (Partially filled)</th>
<th>Yield (mixed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 gallon pail</td>
<td>Part bottle</td>
<td>5.0 gallons (18.9L)</td>
<td></td>
</tr>
</tbody>
</table>

STORAGE TEMPERATURE
Minimum 50°F (10°C) Maximum 75°F (24°C)

TEMPERATURE RESISTANCE
(Dry) Continuous 560°F (300°C) Intermittent 400°F (205°C)

SHELF LIFE
Part A: 3 months at 35°F to 49°F (2°C to 9°C), 2 months at 50°F to 79°F (10°C to 26°C), 1 month at 80°F to 90°F (27°C to 32°C). Do not store at temperature below 35°F (2°C) or above 90°F (32°C).

DUE TO THE REACTIVE NATURE OF THE VINYL ESTER RESINS AND THE CORRESPONDING LIMITED SHELF LIFE, EXPEDITIOUS USE OF THIS PRODUCT IS SUGGESTED, SINCE JOBSITE STORAGE CONDITIONS ARE BEYOND TNEMEC'S CONTROL, THIS PRODUCT IS NON-RETURNABLE.

Part B: 12 months at recommended storage temperature.

FLASH POINT - SETA
Part A: 93°F (35°C) Part B: 135°F (56°C)

HEALTH & SAFETY
Paint products contain 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

<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>Minimum</td>
<td>12.0 (305)</td>
<td>14.0 (356)</td>
<td>114 (10.6)</td>
</tr>
<tr>
<td>Maximum</td>
<td>50.0 (1270)</td>
<td>59.0 (1499)</td>
<td>27 (2.5)</td>
</tr>
</tbody>
</table>

Actual spreading rates will vary with surface profile, amount of overspray and surface irregularities. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. THIS PRODUCT SHOULD NOT BE APPLIED BELOW 60°F (16°C) MATERIAL TEMPERATURE.

### MIXING

Power mix contents of Part A (base) thoroughly, making sure no pigment remains on the bottom of the can. Add the Part B (catalyst) slowly to the Part A while under agitation. Ensure that all Part B is blended with Part A by scraping the pail walls with a flexible spatula. Continue to agitate until thoroughly mixed. Note: Do not over mix, caution should be taken to avoid shearing the glass flake. Do not use mixed material beyond pot life limits.

### THINNING

Do not thin.

### POT LIFE

45 minutes at 75°F (24°C)

### APPLICATION EQUIPMENT

<table>
<thead>
<tr>
<th>Spray Gun</th>
<th>Pump Size</th>
<th>Tip Orifice</th>
<th>Atomizing Pressure</th>
<th>Mat'l Hose ID</th>
<th>Manifold Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graco XHF, XTR-7 Gun or WIWA 500F</td>
<td>70:1 or 68:1</td>
<td>0.025&quot; - 0.039&quot; (635-990 microns)</td>
<td>3000-4000 psi (206-275 bar)</td>
<td>See below</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

### THINNING

Do not thin.

### MATERIAL TEMPERATURE

For optimum application, handling and performance, the material temperature during application should be between 60°F and 90°F (16°C and 32°C). Temperature will affect the workability. Cool temperatures increase viscosity and lengthen pot life. Warm temperatures will decrease viscosity and shorten pot life.

### CLEANUP

Clean and purge lines immediately after use with MEK.

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