PRODUCT PROFILE

Elevated Temperature Vinyl Ester

Series 1402 is a food grade, vinyl ester primer for complete FDA-compliant lining systems in concrete, steel or stainless-steel tanks. Fast-cure characteristics allow for quick application of subsequent coats, limiting downtime and facility disruption. Series 1402 is the only approved primer for the PolyPlym food grade product line. Replaces PolyPlym 4800.

COLORS

900 Clear

FINISH

Gloss

SPECIAL QUALIFICATIONS

Complies with the requirements and extractive limitations of US FDA 21 CFR Part 175.300 Resinous and Polymeric Coatings for tanks or other repeated use direct food storage or mixing vessels 5 gallons or greater under conditions of use C-E with all food types. Compliance was based upon raw material supplier documents, and third party analytical and extractive test results (HKGH02404112 and HKGH02409467).

COATING SYSTEM

Surface Preparation

- **Steel**: SSPC-SP10/NACE 2 Near-White Metal Blast Cleaning or ISO Sa 2 1/2 Very Thorough Blast Cleaning with a minimum angular anchor profile of 3.0 mils. Note: For aggressive cargo exposures or immersion in elevated temperatures, an SSPC-SP5/NACE 1 or ISO Sa 3 Blast Cleaning to Visually Clean Steel with a minimum angular anchor profile of 3.0 mils may be required. Contact Tnemec Technical Service for more information.

- **Concrete**: Allow new cast-in-place concrete to cure a minimum of 28 days at 75°F (24°C). Vently 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). 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 3 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.

**Surface Preparation Standards**

- **Elevated Temperature Vinyl Ester Medium Kit**
  - Part A (Partially filled): 5 gallon pail
  - Part B (Partially filled): pint bottle
  - Yield (mixed): 5.0 gallons (18.9 L)

- **Elevated Temperature Vinyl Ester Small Kit**
  - Part A (Partially filled): 1 gallon can
  - Part B (Partially filled): 4 oz bottle
  - Yield (mixed): 1.0 gallons (3.7 L)

**Theoretical Coverage**

1,363 mil sq ft/gal (33.4 m²/L at 25 microns). See APPLICATION for coverage rates

**Recommended DFT**

1.67 lbs/gallon (200 grams/litre)

**Volume Solids**

85% (mixed). Series 1402 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**

2.0 mils to 6.0 mils (50 microns to 152 microns).

**Drying Time**

- Temperature: 0°F (32°C)
  - To Recoat: 2 hours min.
  - Curing Time: 24 hours max.

- Temperature: 70°F (21°C)
  - To Recoat: 2 hours min.
  - Curing Time: 24 hours max.

**Immersion Service**

- Minimum: 40°F (4°C)  
  - Maximum: 80°F (26°C)

**Shelf Life**

Part A: 3 months. Part B: 12 months at recommended storage temperatures. DUE TO THE REACTIVE NATURE OF THE VINYL ESTER RESINS AND THE CORRESPONDING LIMITED SHELF LIFE, EXPEDITIOUS USE OF THIS PRODUCT IS SUGGESTED. SINCE JOSITE STORAGE CONDITIONS ARE BEYOND TнемECs CONTROL, THIS PRODUCT IS NON-RETURNABLE.

**Temperature Resistance**

- Minimum: 40°F (4°C)  
  - Maximum: 80°F (26°C)

**Flash Point - Setra**

Part A: 85°F (29°C)  
Part B: 135°F (56°C)

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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.
**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**

<table>
<thead>
<tr>
<th>COVERAGE RATES</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>2.0 (50)</td>
<td>2.4 (62)</td>
<td>682 (65)</td>
</tr>
<tr>
<td>Maximum</td>
<td>6.0 (152)</td>
<td>7.0 (177)</td>
<td>227 (21)</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. Care should be exercised so as not to entrap air in the mixed material. Do not use mixed material beyond pot life limits.

**THINNING**

Do not thin.

**POT LIFE**

30 minutes at 75°F (24°C)

*Note:* At higher temperatures pot life will decrease (use caution in spray equipment). In hot weather, material should be cooled to 65°F to 80°F (18°C to 27°C) prior to mixing and application to improve workability and avoid shortened pot life.

25 minutes at 75°F (24°C)

**SPRAY LIFE**

Airless Spray

<table>
<thead>
<tr>
<th>Tip Orifice</th>
<th>Atomizing Pressure</th>
<th>Mat'l Hose ID</th>
<th>Manifold Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.013&quot;-0.017&quot; (330-431 microns)</td>
<td>3000-4000 psi (206-275 bar)</td>
<td>3/8&quot; (9.5 mm)</td>
<td>60 mesh (250 microns)</td>
</tr>
</tbody>
</table>

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

Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

Roller: Use 1/4" or 3/8" (6.5 mm to 9.5 mm) high quality synthetic woven nap covers.

**SURFACE TEMPERATURE**

Minimum 60°F (16°C), optimum 70°F (21°C), maximum 100°F (38°C). The surface should be dry and at least 5°F (5°C) above the dew point. At surface temperatures below 60°F (16°C), Series 1402 will not cure properly or obtain maximum chemical resistance. At relative humidities above 75%, the cure of this coating may be retarded. It is also recommended that all precautions be taken to insure that adequate forced-air ventilation exists.

**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.