PRODUCT PROFILE

GENERAL DESCRIPTION
Inorganic Hybrid Water-Based Epoxy

COMMON USAGE
An advanced generation, water-based epoxy coating that is low odor and low VOC. Specifically formulated to provide a corrosion resistant barrier under fluid-applied insulating coatings as well as traditional insulation. When used as a one or two coat system, Series 1224 protects ferrous metal substrates from the effects of corrosion under insulation (CUI). Its high performance formulation offers excellent adhesion and provides exceptional protection up to 400°F (204°C). Formula protected under U.S. patent.

COLORS
- 1288 Off-White. Note: Additional colors may be available. Contact your Tnemec representative for more information.

FINISH
- Flat

COATING SYSTEM

PRIMERS
- Steel: Self-priming or Series 1, 90G-1K97, 90-97, H90-97, 91-H₂O, 94-H₂O, 394. Note: Series 1, 90G-1K97, 90-97, H90-97, 91-H₂O, 94-H₂O and 394 must be exterior exposed for one day prior to topcoating.
- Galvanized Steel: Self-priming

TOPCOATS
- Series 971 Note: Series 971 may be a suitable primer for a variety of topcoats. Please contact Tnemec Technical Services for non-insulative applications.

SURFACE PREPARATION

STEEL
- SSPC-SP6/NACE 3 Commercial Blast Cleaning
- Note: Abrasive blast cleaning generally produces the best coating performance. If conditions will not permit this, Series 1224 may be applied to SSPC-SP2 or SP5 Hand or Power Tool Cleared surfaces.

GALVANIZED STEEL
- Surface preparation recommendations will vary depending on substrate and exposure conditions. Consult the latest version of Tnemec Technical Bulletin 10-78 or contact your Tnemec representative or Tnemec Technical Services.

NON-FERROUS METAL
- Contact Tnemec Technical Services for more information.

CAST/DUCTILE IRON
- Contact your Tnemec representative or Tnemec Technical Services.

PAINTED SURFACES
- Test patch is recommended in accordance with Technical Bulletin 98-10 latest revision.

PRIMED SURFACES
- Non-Immersion Service: Ask your Tnemec representative for specific recommendations.
- Must be clean, dry and free of oil, grease and other contaminants.

ALL SURFACES
- Series 1, 90G-1K97, 90-97, H90-97, 91-H₂O, 94-H₂O, 394 must be exterior exposed for one day prior to topcoating.

TECHNICAL DATA

VOLUME SOLIDS
- 65% (mixed)

RECOMMENDED DFT
- 4.0 to 8.0 mils (100 to 205 microns) per coat.
- Note: Two coats may be required for aggressive exposures.

CURING TIME

<table>
<thead>
<tr>
<th>Temperature</th>
<th>To Touch</th>
<th>To Handle</th>
<th>To Reccoat</th>
</tr>
</thead>
<tbody>
<tr>
<td>95°F (35°C)</td>
<td>30 minutes</td>
<td>3 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td>75°F (24°C)</td>
<td>1 hour</td>
<td>4 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td>55°F (13°C)</td>
<td>3 hours</td>
<td>8 hours</td>
<td>12 hours</td>
</tr>
<tr>
<td>45°F (7°C)</td>
<td>6 hours</td>
<td>16 hours</td>
<td>24 hours</td>
</tr>
<tr>
<td>35°F (2°C)</td>
<td>8 hours</td>
<td>6 days</td>
<td>8 days</td>
</tr>
</tbody>
</table>

Curing time varies with surface temperature, air movement, humidity and film thickness. Substrates containing integral water repellents can prolong cure times.

Unthinned: 0.01 lbs/gallon (1 gram/litre)

0.00 lbs/gal solids

1.049 sq ft/gal (25.7 m²/L at 25 microns). See APPLICATION for coverage rates.

Two: Part A and Part B

KIT CONSISTS OF:

<table>
<thead>
<tr>
<th>Packaging</th>
<th>PART A (Partially Filled)</th>
<th>PART B (Partially Filled)</th>
<th>Yield (mixed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Kit</td>
<td>3.5 gal pail</td>
<td>6 gal pail</td>
<td>5 gallons (18.9 L)</td>
</tr>
<tr>
<td>Small Kit</td>
<td>2 gal pail</td>
<td>3 gal pail</td>
<td>2 gallons (7.5 L)</td>
</tr>
</tbody>
</table>

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.
APPLICATION

COVERAGES

<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>6.0 (150)</td>
<td>9.0 (230)</td>
<td>175 (16.2)</td>
</tr>
<tr>
<td>Minimum</td>
<td>4.0 (100)</td>
<td>6.0 (150)</td>
<td>262 (24.4)</td>
</tr>
<tr>
<td>Maximum</td>
<td>8.0 (205)</td>
<td>12.0 (305)</td>
<td>151 (12.2)</td>
</tr>
</tbody>
</table>

(1) Note for Steel: Roller or brush application requires two or more coats to obtain recommended film thickness. Allow for overspray and surface irregularities. Wet film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thickness may adversely affect coating performance.

MIXING

Power mix contents of each container, making sure no pigment remains on the bottom. Add the contents of the can marked Part A to Part B while under mechanical agitation. During mixing, scrape the container wall to aid in complete blending of the two components. Continue agitation until the two components are thoroughly mixed. Thin by volume and thoroughly mix. Do not use mixed material beyond pot life limits. Note: Both components should be above 50°F (10°C) prior to mixing.

THINNING

Use cool, clean tap water. For airless spray, roller or brush applications, thin 15% or 19.2 ounces per gallon. Caution: Thinning with high temperature water will significantly reduce the pot life. For best results, water temperature should not exceed 80°F (27°C).

POT LIFE

2 hours at 70°F (21°C)  1 hour at 95°F (35°C)

APPLICATION EQUIPMENT

<table>
<thead>
<tr>
<th></th>
<th>Tip Orifice</th>
<th>Atomizing Pressure</th>
<th>Mat'l Hose ID</th>
<th>Manifold Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airless Spray</td>
<td>0.019&quot;-0.023&quot; (483-584 microns)</td>
<td>3000-4500 psi (207-310 bar)</td>
<td>1/4&quot; or 3/8&quot; (9.5 mm or 6.4 mm)</td>
<td>60 mesh (250 microns)</td>
</tr>
</tbody>
</table>

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

Roller: Use a synthetic woven nap cover. For smooth surfaces use 3/8" to 1/2" (9.5 mm to 12.7 mm). To obtain proper penetration for rough or porous surfaces, use a longer nap cover. Smooth out build-up at laps.

Brush: Use a stiff nylon brush. Work material into voids and avoid brushing out too thin.

SURFACE TEMPERATURE

Minimum 40°F (4°C), optimum 65°F to 80°F (18°C to 27°C), maximum of 200°F (93°C). The substrate temperature should be at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature.

For optimum application and handling, the material temperature during application should be between 70°F and 85°F (21°C and 29°C). Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten pot life.

MATHEMATICAL TEMPERATURE

For application, the material temperature during application should be between 70°F and 85°F (21°C and 29°C). Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten pot life.

CLEANUP

Flush out and clean all equipment immediately after use with water, followed by a final flush with MEK or Methyl Acetate.

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