PHENICON® HS
EPOXY NOVOLAC PHENOLIC TANK LINING

PRODUCT DESCRIPTION

PHENICON HS is a thin film, epoxy phenolic novolac lining for tanks, pipes and secondary containment.

INTENDED USES

An API 652 compliant thin film, internal lining for the storage of crude and refined petrochemicals (including aviation fuel) as well as a wide range of solvents.

PRODUCT DATA

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Minimum recommended surface preparation:
Concrete & Masonry: Immersion: SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI No. 310.2R CSP 2-3

Semi-Gloss
Off White, Light Gray, and Light Blue
75% ± 2%, mixed
<250 g/L; 2.08 lb/gal
4:1 by volume

Average Drying Times @ 7.0 mils wet (175 microns):

<table>
<thead>
<tr>
<th></th>
<th>55°F (13°C)</th>
<th>77°F (25°C)</th>
<th>120°F (49°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch</td>
<td>7 hours</td>
<td>3 hours</td>
<td>1 hour</td>
</tr>
<tr>
<td>Handle</td>
<td>48 hours</td>
<td>18 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td>Recoat:</td>
<td>minimum:</td>
<td>maximum:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>48 hours</td>
<td>18 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>30 days</td>
<td>30 days</td>
<td>30 days</td>
</tr>
<tr>
<td>Cure to service</td>
<td>14 days</td>
<td>7 days</td>
<td>3 days</td>
</tr>
<tr>
<td>Pot Life</td>
<td>4 hours</td>
<td>2 hours</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Sweat-in-time</td>
<td>30 minutes</td>
<td>15 minutes</td>
<td>none</td>
</tr>
</tbody>
</table>

Average Drying Times @ 7.0 mils wet (175 microns):

With low temp hardener
35°F (1.6°C) 55°F (13°C) 77°F (25°C) 50% RH
Touch: 12 hours 4 hours 2 hours
Handle: 24 hours 18 hours 12 hours
Recoat: minimum: 24 hours 18 hours 12 hours
maximum: 30 days 30 days 30 days
Cure to service: 7 days 5 days 5 days
Pot Life: 4 hours 2 hours 1 hour
Sweat-in-time: 15 minutes none none

Pot life is dependent upon temperature and mass
Drying time is temperature, humidity, and film thickness dependent.
If maximum recoat time is exceeded, abrade surface before recoating.

With standard hardener
55°F (13°C) 77°F (25°C) 120°F (49°C)
50% RH

Wet mils (microns) 7.0 (175) 9.0 (225)
Dry mils (microns) 5.0 (125) 7.0 (175)
~Coverage sq ft/gal (m²/L) 200 (4.9) 240 (5.9)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft 1200 (29.4)

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Shelf Life: 36 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point: 80°F (27°C), PMCC, mixed
Reducer: Not recommended
Clean Up: Reducer #005
Weight: 12.45 ± 0.2 lb/gal ; 1.5 Kg/L, mixed

Ref: 1305-1 www.sherwin-williams.com/protective
### APPLICATION

<table>
<thead>
<tr>
<th>Method</th>
<th>Pressure</th>
<th>Hose</th>
<th>Tip</th>
<th>Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airless Spray</td>
<td>3000 psi minimum</td>
<td>3/8”-1/2” ID (9.5-12.7 mm)</td>
<td>017”-.021” (0.43-0.53 mm)</td>
<td>60 mesh</td>
</tr>
<tr>
<td>Conventional Spray</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gun</td>
<td>Binks 95</td>
<td>66/65</td>
<td>65 PR</td>
<td>65-75 psi (4.5-5.1 bar)</td>
</tr>
<tr>
<td>Tip and Needle</td>
<td></td>
<td>66/65</td>
<td>65 PR</td>
<td>Fluid Pressure</td>
</tr>
<tr>
<td>Air Cap</td>
<td></td>
<td></td>
<td></td>
<td>15-20 psi (1.0-1.4 bar)</td>
</tr>
<tr>
<td>Atomization Pressure</td>
<td>65-75 psi (4.5-5.1 bar)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### APPLICATION CONDITIONS

- **Temperature (air & surface):**
  - Standard Hardener: 55°F (13°C) minimum, 120°F (49°C) maximum
  - Low Temp Hardener: 35°F (1.6°C) minimum, 80°F (27°C) maximum
  - At least 5°F (2.8°C) above dew point
- **Material should be mixed at 55°F (13°C) minimum.**
- **Relative humidity:** 85% maximum

### RECOMMENDED SYSTEMS

<table>
<thead>
<tr>
<th>System Description</th>
<th>Dry Film Thickness / ct.</th>
<th>Mil</th>
<th>Microns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel, Immersion &amp; Atmospheric 2 Cts. Phenicon HS</td>
<td>5.0-7.0</td>
<td></td>
<td>(125-175)</td>
</tr>
<tr>
<td>Concrete/Masonry, Smooth, Immersion &amp; Atmospheric 2 Cts. Phenicon HS</td>
<td>5.0-7.0</td>
<td></td>
<td>(125-175)</td>
</tr>
</tbody>
</table>

**NOTE:** Phenicon HS may be applied at alternate thicknesses, up to 16 mils (400 microns) total dft, depending on application conditions. Consult your Sherwin-Williams representative for additional information.

### WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Sheet.

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### APPROVALS

- This product meets specific design requirements for non-safety related nuclear plant applications in Level II, III and Balance of Plant, and DOE nuclear facilities*
- Acceptable for use in Canadian Food Processing facilities* categories: D4 (Confirm acceptance of specific part numbers / rexes with your SW Sales Representative)

* Nuclear qualifications are NRC license specific to the facility

### ADDITIONAL NOTES

- Tinting is acceptable for use in guide coat or prime coat only. Use Maxitoner Colorants up to 1/4 oz per gallon maximum.
- Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.
- Do not mix previously catalyzed material with new.
- Use of low temperature hardener may cause accelerated yellowing of the coating.
- Do not use low temperature hardener for immersion service in methanol, ethanol, or blends.
- Light Blue contains Opti-Check OAP pigment technology for rapid holiday detection with safe blue light inspection lamps.

### HEALTH AND SAFETY

Refer to the SDS sheet before use. Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

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**Ref: 1305-1**

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