TARGUARD COAL TAR EPOXY

PRODUCT DESCRIPTION

TARGUARD COAL TAR EPOXY is a high build, polyamide epoxy coal tar coating. Meets the following specifications:

- Corps of Engineers Formula C-200a
- SSPC Paint 16 Specification
- AWWA C-210, Non-Potable Water Applications

PRODUCT CHARACTERISTICS

- Finish: Semi-Gloss
- Color: Black, Red
- Volume Solids: 74% ± 2%, mixed
- Weight Solids: 82% ± 2%, mixed
- VOC (calculated):
  - Unreduced: <250 g/L; 2.08 lb/gal
  - Reduced 10%: <300 g/L; 2.5 lb/gal
- Mix Ratio: 2 component, premeasured 4:1
  - 5 gallons mixed

Recommended Spreading Rate per coat:

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.0 (275)</td>
<td>11.0 (275)</td>
<td>22.0 (550)</td>
</tr>
<tr>
<td>8.0 (200)</td>
<td>8.0 (200)</td>
<td>16.0 (400)</td>
</tr>
<tr>
<td>Coverage sq ft/gal (m²/L)</td>
<td>74 (1.8)</td>
<td>148 (3.6)</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) per 1 mil / 25 microns dft</td>
<td>1184 (29)</td>
<td></td>
</tr>
</tbody>
</table>

Drying Schedule @ 11.0 mils wet (275 microns):

- @ 50°F/10°C: 14 hours
- @ 77°F/25°C: 8-10 hours
- @ 100°F/38°C: 2 hours
- 50% RH

To touch:
- minimum: 48 hours
- maximum: 72 hours

To recoat:
- minimum: 48 hours
- maximum: 72 hours

To cure:
- 7 days
- 3-4 days
- 2 days

If maximum recoat time is exceeded, abrade surface before recoating.

Pot Life:
- 2.5 hours
- 2 hours
- 1 hour

Sweat-in-time:
- 15 minutes
- 10 minutes
- none

SHelf Life:
- Part A: 8 months, unopened
- Part B: 36 months, unopened
- Store indoors at 40°F (4.5°C) to 100°F (38°C).

Flash Point:
- 82°F (28°C), PMCC, mixed
- Xylene, R2K4
- Reducer R7K111 or Oxsol 100

Recommended Uses

For use over prepared substrates such as steel and concrete in industrial environments:

- Penstocks
- Dam gates
- Petroleum storage tanks
- Offshore drilling rigs
- Heavy duty structural coating
- Non-potable water tank and pipe coating
- Acceptable for use with cathodic protection systems

Performance Characteristics

Substrate*: Steel
Surface Preparation*: SSPC-SP6/NACE 3
System Tested*: 1 ct. TarGuard Coal Tar Epoxy @ 10.0 mils (250 microns) dft

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion Resistance</td>
<td>ASTM D4060, CS17</td>
<td>137 mg loss</td>
</tr>
<tr>
<td>Adhesion</td>
<td>ASTM D4541</td>
<td>1000 psi</td>
</tr>
<tr>
<td>Direct Impact Resistance</td>
<td>ASTM D2794</td>
<td>36 in. lb.</td>
</tr>
<tr>
<td>Dry Heat Resistance</td>
<td>ASTM D2485</td>
<td>350°F (177°C)</td>
</tr>
<tr>
<td>Moisture Condensation</td>
<td>ASTM D4585, 100°F</td>
<td>Excellent</td>
</tr>
<tr>
<td>Resistance</td>
<td>(38°C), 3000 hours</td>
<td></td>
</tr>
<tr>
<td>Pencil Hardness</td>
<td>ASTM D3363</td>
<td>F</td>
</tr>
<tr>
<td>Salt Fog Resistance</td>
<td>ASTM B117, 3000</td>
<td>Excellent</td>
</tr>
<tr>
<td>Resistance</td>
<td>hours</td>
<td></td>
</tr>
<tr>
<td>Thermal Shock</td>
<td>ASTM D2246, 100</td>
<td>Excellent</td>
</tr>
<tr>
<td>cycles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wet Heat Resistance</td>
<td>Non-immersion</td>
<td>120°F (49°C)</td>
</tr>
</tbody>
</table>

Continued on back
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.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

**Iron & Steel:**
- Atmospheric: SSPC-SP6/NACE 3, 2 mil (50 micron) profile
- Immersion: SSPC-SP10/NACE 2, 2.5-4.0 mil (63-100 micron) profile

**Aluminum:** Brush Blast, 2 mil (50 micron) profile

**Galvanizing:** Brush Blast, 2 mil (50 micron) profile

**Concrete & Masonry:**
- Atmospheric: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3
- Immersion: SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI No. 310.2R, CSP 1-3

**Surface Preparation Standards**

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>BS7179/A1</th>
<th>Swedish Std.</th>
<th>SSPC NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>SP 5</td>
<td>1</td>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>SP 10</td>
<td>2</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>SP 6</td>
<td>3</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>SP 7</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>C St1</td>
<td>C St1</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td>Pitted &amp; Rusted</td>
<td>D St2</td>
<td>D St2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>D St3</td>
<td>D St3</td>
<td>SP 3</td>
<td>-</td>
</tr>
</tbody>
</table>

Do not tint.

**Application Conditions**

- Temperature: 50°F (10°C) minimum, 120°F (49°C) maximum (air, surface, and material)
- Relative humidity: At least 5°F (2.8°C) above dew point
- 90% maximum

Refer to product Application Bulletin for detailed application information.

**Ordering Information**

Packaging:
- Part A: 5 gallons (18.9L) mixed
- Part B: 1 gallon (3.78L)

Weight: 10.7 ± 0.2 lb/gal ; 1.3 Kg/L, mixed

**Safety Precautions**

Refer to the MSDS 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.

**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.
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.

**Iron & Steel, Immersion Service:**
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Blast Cleaning per SSPC-SP10 or SSPC-SP12/NACE No. 5. For SSPC-SP10, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2.5-4.0 mils / 63-100 microns). For SSPC-SP12/NACE No. 5, all surfaces to be coated shall be cleaned in accordance with WJ-2. Pre-existing profile should be approximately 2.5-4.0 mils (63-100 microns). Remove all weld spatter and round all sharp edges by grinding. Prime any bare steel the same day as it is cleaned.

**Iron & Steel, Atmospheric Service:**
Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3 or SSPC-SP12/NACE 5. For surfaces prepared by SSPC-SP6/NACE 3, first remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). For surfaces prepared by SSPC-SP12/NACE No. 5, all surfaces shall be cleaned in accordance with WJ-3. Pre-existing profile should be approximately 2 mils (50 microns). Prime any bare steel the same day as it is cleaned.

**Galvanized Steel/Aluminum**
Allow to weather a minimum of six months prior to coating. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1 (recommended solvent is VM&P Naphtha). Lightly brush blast per SSPC-SP 7 to provide a 2 mil (50 micron) profile.

**Concrete and Masonry**
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910.

Follow the standard methods listed below when applicable:
- ASTM D4258 Standard Practice for Cleaning Concrete.
- ASTM D4259 Standard Practice for Abrading Concrete.
- ASTM D4260 Standard Practice for Etching Concrete.
- ASTM F1669 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
- SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
- ICRI No. 310.2R Concrete Surface Preparation.

**Concrete, Immersion Service:**
For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 1-3.

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<td>Rusted</td>
<td>C St 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td></td>
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<td>D St 2</td>
<td>SP 2</td>
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The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

**Application Equipment**

**Airless Spray**
- Pressure: 3000 psi
- Hose: 3/8" - 1/2" ID
- Tip: .017" - .025"
- Filter: None
- Reduction: As needed up to 10% by volume

**Conventional Spray (bottom feed tank recommended)**
- Gun: Binks 95
- Fluid Nozzle: 66
- Air Nozzle: 63PB
- Atomization Pressure: 60 psi
- Fluid Pressure: 40 psi
- Reduction: As needed up to 10% by volume

**Brush**
- Small areas only; natural bristle
- Reduction: Not recommended

**Roller**
- Small areas only; 3/8" - 1/2" woven with solvent resistant core
- Reduction: Not recommended

If specific application equipment is not listed above, equivalent equipment may be substituted.
Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine four parts by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated. Re-stir before using.

If reducer solvent is used, add only after both components have been thoroughly mixed, after sweat-in.

Apply paint at the recommended film thickness and spreading rate as indicated below:

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<td></td>
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</tr>
<tr>
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*See Performance Tips section

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

![Drying Schedule @ 11.0 mils wet (275 microns):](image)

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

### CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Xylene, R2K4. Clean tools immediately after use with Xylene, R2K4. In California use Reducer R7K111 or Oxsol 100. Follow manufacturer’s safety recommendations when using any solvent.

### 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 Information and Application Bulletin.

### PERFORMANCE TIPS

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Xylene, R2K4. In California use Reducer R7K111 or Oxsol 100.

Coating must be fully cured before placing into immersion service.

For wet-on-wet application, apply first coat at 8-10 mils (200-250 microns) dft and let flash for 45 minutes. Then apply a second coat at 8-10 mils (200-250 microns) dft.

For Immersion Service: (if required) Holiday test in accordance with ASTM D5162 for steel, or ASTM D4787 for concrete.

Quik-Kick Epoxy Accelerator is acceptable for use. See data page 4.99 for details.

When coating over aluminum and galvanizing, recommended dft is 2-4 mils (50-100 microns).

Refer to Product Information sheet for additional performance characteristics and properties.

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