**Product Information**

**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:**

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<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.0 (275)</td>
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<td>Dry mils (microns)</td>
<td>8.0* (200)</td>
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<td>~Coverage sq ft/gal (m²/L)</td>
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<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>1184 (29)</td>
<td></td>
</tr>
</tbody>
</table>

*See Performance Tips section

**Drying Schedule @ 11.0 mils wet (275 microns):**

<table>
<thead>
<tr>
<th>@ 50°F/10°C</th>
<th>77°F/25°C</th>
<th>@ 100°F/38°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% RH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To touch:</td>
<td>14 hours</td>
<td>8-10 hours</td>
</tr>
<tr>
<td>To recoat:</td>
<td>minimum:</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>max:</td>
<td>72 hours</td>
</tr>
<tr>
<td>To cure:</td>
<td>7 days</td>
<td>3-4 days</td>
</tr>
</tbody>
</table>

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

Drying time is temperature, humidity, and film thickness dependent.

**Pot Life:** 2.5 hours

**Sweat-in-time:** 15 minutes

**Flash Point:** 82°F (28°C), PMCC, mixed

**Reducer/Clean Up:**
- Xylene, R2K4
- Reducer R7K111 or Oxsol 100

**Substrate**: Steel

**Surface Preparation**: SSPC-SP6/NACE 3

**System Tested**:
- 1 ct. TarGuard Coal Tar Epoxy @ 10.0 mils (250 microns) dft

**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**

<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 wheel, 1000 cycles, 1 kg load</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 (quench test only)</td>
<td>ASTM D2485</td>
<td>350°F (177°C)</td>
</tr>
<tr>
<td>Moisture Condensation Resistance</td>
<td>ASTM D4585, 100°F (38°C), 3000 hours</td>
<td>Excellent</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 hours</td>
<td>Excellent</td>
</tr>
<tr>
<td>Thermal Shock</td>
<td>ASTM D2246, 100 cycles</td>
<td>Excellent</td>
</tr>
<tr>
<td>Wet Heat Resistance</td>
<td>Non-immersion</td>
<td>120°F (49°C)</td>
</tr>
</tbody>
</table>

**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).

**Reducer/Clean Up**: In California:
- Xylene, R2K4
- Reducer R7K111 or Oxsol 100
**PRODUCT INFORMATION**

**RECOMMENDED SYSTEMS**

<table>
<thead>
<tr>
<th>Dry Film Thickness / ct.</th>
<th>Concrete, atmospheric or immersion:</th>
<th>2 cts. TarGuard Coal Tar Epoxy: 8.0-16.0 (200-400)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Steel, atmospheric or immersion:</td>
<td>2 cts. TarGuard Coal Tar Epoxy: 8.0-16.0 (200-400)</td>
</tr>
<tr>
<td></td>
<td>Steel, atmospheric or immersion:</td>
<td>2 cts. Macropoxy 240: 3.0-5.0 (75-125)</td>
</tr>
<tr>
<td></td>
<td>Steel, atmospheric or immersion:</td>
<td>2 cts. TarGuard Coal Tar Epoxy: 8.0-16.0 (200-400)</td>
</tr>
<tr>
<td></td>
<td>Steel, zinc rich primer, atmospheric only:</td>
<td>1 ct. Zinc Clad 4100: 3.0-5.0 (75-125)</td>
</tr>
<tr>
<td></td>
<td>Galvanized Metal, atmospheric only:</td>
<td>2 cts. TarGuard Coal Tar Epoxy: 2.0-4.0 (50-100)</td>
</tr>
<tr>
<td></td>
<td>Galvanized Metal, atmospheric only:</td>
<td>2 cts. TarGuard Coal Tar Epoxy: 2.0-4.0 (50-100)</td>
</tr>
</tbody>
</table>

**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.

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-WJ2/NACE WJ-2 (Type M Flash rust), 2.0-3.0 mils (50-75 microns) profile
  - Brush Blast, 2 mil (50 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

**TINTING**

Do not tint.

**APPLICATION CONDITIONS**

Temperature: 50°F (10°C) minimum, 120°F (49°C) maximum.

Relative humidity: 90% maximum.

Refer to product Application Bulletin for detailed application information.

**ORDERING INFORMATION**

Packaging: 5 gallons (18.9L) mixed Part A: 4 gallons (15.1L) in a 5 gallon (18.9L) container Part B: 1 gallon (3.78L)

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

**SAFETY PRECAUTIONS**

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.

**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 Preparations**

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 Metal Blast Cleaning per SSPC-SP10. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2.5-4.0 mils / 63-100 microns). Ultra High Pressure Hydroblasting / Abrasive Wet Blasting may be applied to surfaces prepared to SSPC-WJ2/NACE WJ-2, allowable flash rusted to no worse than Type (M) Moderate. Pre-existing profile should be approximately 2.0-3.0 mils (50-75 microns). Remove all weld spatter and round all sharp edges by grinding. 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. 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). Ultra High Pressure Hydroblasting / Abrasive Wet Blasting may be applied to surfaces prepared to SSPC-WJ2/NACE WJ-2, allowable flash rusted to no worse than Type (M) Moderate. Pre-existing profile should be approximately 2.0-3.0 mils (50-75 microns). Prime any bare steel the same day as it is cleaned.

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.

**Surface Preparation Standards**

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>Swedish Std.</th>
<th>SSPC</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good (Rust Removed)</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>SP 2</td>
<td>2</td>
</tr>
<tr>
<td>Fair (Rust Present)</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>SP 10</td>
<td>2</td>
</tr>
<tr>
<td>Poor (Remove Paint)</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>Rusted</td>
<td>Cf 1</td>
<td>SP 1</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td>Df 1</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted</td>
<td>Cf 1</td>
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<td></td>
<td>Pitted &amp; Rusted</td>
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**Application Conditions**

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

**Application Equipment**

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.

- **Reducer/Clean Up**
  - Xylene, R2K4
  - Reducer R7K111 or Oxsol 100

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

- **Roller**
  - Cover: 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.
Application Procedures

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 rate as indicated below:

Recommended Spreading Rate per coat:

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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 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.

Safety Precautions

Refer to the SDS sheet before use.

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Warranty

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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.

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