DURA-PLATE® 6000
REINFORCED EPOXY

Product Information

Product Description

DURA-PLATE 6000 is a 100% solids, high build, high strength, reinforced epoxy lining for concrete and steel in severe service environments with fast return-to-service times and the option for single leg application. It eliminates the application challenges associated with standard reinforced epoxy products while providing long-term life expectancy with extremely low permeability and excellent chemical resistance.

- Glass flake reinforced
- Hangs up to 125+ mils* (3,125 microns)
- Extremely low permeability
- Single leg or plural component spray application
- Extended 28 day re-coat window
- Long pot life
- Single leg or plural component spray application
- Hangs up to 125+ mils* (3,125 microns)
- Glass flake reinforced
- Excellent chemical resistance.

Extended 28 day recoat window

Weight Solids:

Color:

Finish:

VOC (unreduced):

Recommended Spreading Rate per coat:

Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft

Test Name | Test Method | Results
--- | --- | ---
Abrasion Resistance | ASTM D4060 | <120 mg loss
Adhesion | ASTM D4541 (Steel) | >3,000 psi
 | ASTM D4541 (Concrete) | substrate failure
Compressive Strength | ASTM D695 | 10,000 psi
Direct Impact Resistance | ASTM D2794 | 80 in. lb.
Elongation Percentage | ASTM D2794 | 2%
Flexural Modulus | ASTM D790 | 670,000 psi
Flexural Strength | ASTM D790 | 12,000 psi
Hardness, Shore D | ASTM D2240 | 75
Humidity Resistance | ASTM D4585 | Pass
Severe Wastewater Analysis Test | ASTM G210 | Pass
Tensile Strength | ASTM D638 | 7,300 psi
Water Vapor Transmission | ASTM D1653 | 0 gms/m² (24 hours)

Recommended Uses

For use over properly prepared steel and concrete surfaces in industrial environments and water and wastewater exposures, such as but not limited to:

- Severe wastewater immersion and headspace environments
- Sewer collection systems
- Wastewater treatment plants
- Industrial and wastewater tankage
- Suitable for use in USDA-inspected food processing facilities

For NSF approved applications:

- 125 mils (3,125 microns) maximum for tanks
- 50 mils (1,250 microns) maximum for pipes, valves, fittings

Performance Characteristics

Drying Schedule @ 120.0 mils wet (3,000 microns):
**Recommended Systems**

<table>
<thead>
<tr>
<th></th>
<th>Concrete: Dry Film Thickness / ct.</th>
<th>Steel:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primer 1 ct.</td>
<td>Dura-Plate 6000 60.0-125.0*** (1,500-3,125)</td>
<td>Dura-Plate 6000 60.0-125.0*** (1,500-3,125)</td>
</tr>
<tr>
<td>1 ct. Dura-Plate 2300 as needed to fill surface imperfections</td>
<td>1 ct. (Optional) Primer as defined above</td>
<td></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:** SSPC-SP10/NACE 2, 3 mil (75 micron) profile
- **Concrete & Masonry:** SSPC-SP13/NACE 6 or ICRI No. 310.2R CSP 3-5
- **Ductile Iron Pipe:**
  - Large parts/structures (>50 ft²): NAPF 500-03-04, minimum 3 mil (75 micron) angular profile
  - Small area (<50 ft²): NAPF 500-03-03

**Surface Preparation Standards**

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>BS7079-A1</th>
<th>SSPC</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>Sa 3</td>
<td>SP 5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>SP 10</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>SP 7</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>SP 3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rusted</td>
<td>D St 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted</td>
<td>D St 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td>D St 3</td>
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<td>Pitted &amp; Rusted</td>
<td>D St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
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</table>

**Tinting**

Do not tint.

**Application Conditions**

Temperature: 35°F (1.7°C) minimum, 150°F (66°C) maximum (air, surface, and material)

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

**Ordering Information**

- **Part A:** 3 gallons (11.3L) in a 5 gallon (18.9L) container, 5 gallons (18.9L) in a 5 gallon (18.9L) container
- **Part B:** 1.5 gallons (5.7L) in a 2 gallon (7.6L) container, 5 gallons (18.9L) in a 5 gallon (18.9L) container

Weight: 10.45 lb/gal ; 1.25 Kg/L, mixed, White

**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.

**Disclaimer**

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**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:**

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. The substrate shall not contain soluble salt concentrations in excess of 3 ppm for chlorides, 5 ppm for nitrates, and 10 ppm for sulfates. Surface with soluble salt concentrations in excess of these values shall be cleaned until satisfactory results are obtained. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using sharp, angular abrasive for optimum surface profile (3 mils / 75 microns). Remove all weld spatter and round all sharp edges. Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

**Concrete and Masonry:**

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 3-5. 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.

**Ductile Iron Pipe:**

Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01. The substrate shall not contain soluble salt concentrations in excess of 3 ppm for chlorides, 5 ppm for nitrates, and 10 ppm for sulfates. Surface with soluble salt concentrations in excess of these values shall be cleaned until satisfactory results are obtained. Minimum surface preparation for large surfaces shall be Abrasive Blast Cleaning for Ductile Iron Pipe per NAPF 500-03-04. Blast clean all surfaces using sharp, angular abrasive for optimum surface profile (3 mils / 75 microns or greater, with no individual reading being less than 2.5 mils / 63 microns per NACE RP0287). Small surface areas (<50 sq. ft.) shall be Power Tool Cleaned per NAPF 500-03-03. Grind all surfaces utilizing mechanical scarification capable of producing the greatest surface profile and shall be performed in a perpendicular pattern to the direction of flow on the substrate.

**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 F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete
- SSPC-SP13/NACE 6 Surface Preparation of Concrete
- ICRI No. 310.2R Concrete Surface Preparation

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**Application Conditions**

- **Temperature:** 35°F (1.7°C) minimum, 150°F (66°C) maximum (air, surface, and material) At least 5°F (2.8°C) above dew point
- **Relative humidity:** 85% 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.

Application requires a hopper feed or direct immersion delivery of mixed materials. Changes in pressures and tip sizes may be needed for proper spray characteristics.

| Reduction | Not recommended |
| Clean Up | MEK |

**Airless Spray**

- **Pump:** 60:1 or larger
- **Pressure:** 4,000-5,000 psi
- **Hose:** 3/8”
- **Tip:** .021”-.025”
- **Filter:** remove all filters

**Plural Component Equipment**

Acceptable

**Brush and Roll**

for small areas only

If specific application equipment is not listed above, equivalent equipment may be substituted.
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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: pre-mix each individual component with mechanical agitation (drill and mixing blade - Jiffy mixer ES or equivalent). Pour Part A (2 parts by volume) in with Part B (1 part by volume) and mechanically agitate for 3 minutes minimum until uniform and homogenous.

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

<table>
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<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.0 (500)</td>
<td>125.0+  (3,125)</td>
<td></td>
</tr>
<tr>
<td>Dry mils* (microns)</td>
<td>20.0 (500)</td>
<td>125.0+  (3,125)</td>
</tr>
<tr>
<td>~Coverage sq ft/gal (m²/L)</td>
<td>13 (0.3)</td>
<td>80 (2.0)</td>
</tr>
</tbody>
</table>

Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dtf

*Consult systems guide on second page for specific concrete and steel recommendations.

**125 mils (3,125 microns) dtf maximum for NSF applications: tanks

**50 mils (1,250 microns) maximum for NSF applications: pipes, valves, fittings

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

<table>
<thead>
<tr>
<th>Drying Schedule @ 120.0 mils wet (3,000 microns):</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ 55°F/13°C</td>
</tr>
<tr>
<td>50% RH</td>
</tr>
<tr>
<td>To touch: 3 hours</td>
</tr>
<tr>
<td>To handle: 5 hours</td>
</tr>
<tr>
<td>To recoat: 5 hours</td>
</tr>
<tr>
<td>maximum: 28 days</td>
</tr>
<tr>
<td>Cure to service: 10 hours</td>
</tr>
<tr>
<td>Pot life: 1 hour</td>
</tr>
</tbody>
</table>

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

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 MEK. Clean pump, hose, and gun by flushing system with MEK. Where possible, slowly recirculate MEK until to remove any remaining glass flake from areas it could collect inside the pump. Wash tools immediately after use with MEK. Follow manufacturer’s safety recommendations when using any solvent.

DISCLAIMER

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