DURA-PLATE® 6000
REINFORCED EPOXY

PRODUCT INFORMATION

Revised: March 25, 2020
TRM.116

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)
• Single leg or plural component spray application
• Long pot life
• Extended 28 day re-coat window
• May be applied to an SSD (Saturated Surface Dry) substrate

*Refer to NSF website for product restrictions or recommendations on dry film thickness, reducer restrictions and cure times.

PRODUCT CHARACTERISTICS

Finish: Gloss
Color: White, Gray
Volume Solids: 100%, mixed
Weight Solids: 100%, mixed
Mix Ratio: 2:1 by volume
VOC (unreduced): 16 g/L ; 0.13 lb/gal, mixed

Recommended Spreading Rate per coat:

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet mils (microns)</td>
<td>40.0 (1000) 125.0+ (3,125)</td>
</tr>
<tr>
<td>Dry mils* (microns)</td>
<td>40.0 (1000) 125.0+ (3,125)</td>
</tr>
<tr>
<td>~Coverage sq ft/gal (m²/L)</td>
<td>13 (0.3) 40 (1.0)</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>1604 (39.4)</td>
</tr>
</tbody>
</table>

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

Recommended Spreading Rate per coat:

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

- @ 35°F/1.7°C 50% RH
  - To touch: 4 hours
  - To handle: 12 hours
  - To recoat: minimum: 10 hours maximum: 28 days
  - Cure to service: 10 hours
  - Pot life: not recommended

- @ 55°F/13°C 50% RH
  - To touch: 3 hours
  - To handle: 5 hours
  - To recoat: minimum: 5 hours maximum: 28 days
  - Cure to service: 10 hours
  - Pot life: 1 hour

- @ 77°F/25°C 50% RH
  - To touch: 2 hours
  - To handle: 4 hours
  - To recoat: minimum: 5 hours maximum: 28 days
  - Cure to service: 10 hours
  - Pot life: 1 hour

*It is recommended that the product is kept above 55°F (13°C) for application and mixing. If maximum recoat time is exceeded, abrade surface before recoating.

Shelf Life: 24 months, unopened. Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point: >212°F (100°C), PMCC or SETA, mixed
Reducer: Not recommended
Clean Up: MEK

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:
- Refer to NSF website for product restrictions or recommendations on dry film thickness, reducer restrictions and cure times

PERFORMANCE CHARACTERISTICS

Substrate*: Steel
Surface Preparation*: SSPC-SP10/NACE2
System Tested*: 1 ct. Dura-Plate 6000 @ 120 mils (3,000 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)

Third party testing available upon request.

www.sherwin-williams.com/protective
continued on back
**Recommended Systems**

<table>
<thead>
<tr>
<th>Concrete:</th>
<th>Dry Film Thickness / ct. Mils (Microns)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primer (optional for below grade structures to reduce out gassing potential and required for above ground open top structures to reduce outgassing potential): Corobond 100, Corobond LT, or Resuprime MVT</td>
<td>1 ct. Dura-Plate 6000 60.0-125.0+** (1,500-3,125) or 1 ct. Dura-Plate 2300 as needed to fill surface imperfections 1 ct. (Optional) Primer as defined above 1 ct. Dura-Plate 6000 60.0-125.0+** (1,500-3,125)</td>
</tr>
</tbody>
</table>

| Steel:             | 1 ct. Dura-Plate 6000 40.0 (1,000) |

**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:**

- Atmospheric: NAPF 500-03-03 Power Tool Cleaning
- Buried & Immersion: NAPF 500-03-04 Abrasive Blast Cleaning
- Cast Ductile Iron Fittings: NAPF 500-03-05 Abrasive Blast Cleaning

**Surface Preparation Standards**

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>BS70971:91</th>
<th>SSPC</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>Sa 3</td>
<td>Sa 1</td>
<td>SP 5</td>
<td>1</td>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>Sa 2</td>
<td>SP 10</td>
<td>2</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>Sa 3</td>
<td>SP 5</td>
<td>3</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>Sa 3</td>
<td>SP 7</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>C Sl 2</td>
<td>C Sl 3</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td>Rusted, Pitted &amp; Rusted</td>
<td>C Sl 3</td>
<td>C Sl 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>D Sl 2</td>
<td>D Sl 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
</tbody>
</table>

**Tinting**

Do not tint.

**Application Conditions**

- **Temperature:**
  - Air & Surface: 35°F (1.7°C) minimum, 150°F (66°C) maximum
  - Material: 77°F (25°C) minimum, 150°F (66°C) maximum
  - At least 5°F (2.8°C) above dew point

Refer to product Application Bulletin for detailed application information.

**Ordering Information**

<table>
<thead>
<tr>
<th>Packaging:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A: 3 gallons (11.3L) in a 5 gallon (18.9L) container, 5 gallons (18.9L) in a 5 gallon (18.9L) container</td>
</tr>
<tr>
<td>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</td>
</tr>
</tbody>
</table>

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

**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.

**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.

**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.
**Application Bulletin**

**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 a 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. For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 3-5. Surfaces should be thoroughly clean and dry. 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, Atmospheric Service:**
Minimum surface preparation is Power Tool Clean per NAPF 500-03-03. Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01.

**Ductile Iron Pipe, Buried and Immersion Service:**
Minimum surface preparation is Abrasive Blast Cleaning per NAPF 500-03-04. Ductile iron pipe external surfaces, in some cases, can be damaged by excessive abrasive blast cleaning beyond this standard. Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01.

**Ductile Iron Fittings:**
Minimum surface preparation is Abrasive Blast Cleaning per NAPF 500-03-04. Ductile iron pipe external surfaces, in some cases, can be damaged by excessive abrasive blast cleaning beyond this standard. Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01.

**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.

<table>
<thead>
<tr>
<th>Surface Preparation Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition of Surface</td>
</tr>
<tr>
<td>White Metal</td>
</tr>
<tr>
<td>Near White Metal</td>
</tr>
<tr>
<td>Commercial Blast</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Application Conditions**

- **Temperature:**
  - Air & Surface: 35°F (1.7°C) minimum, 150°F (66°C) maximum
  - Material: 77°F (25°C) minimum, 150°F (66°C) maximum
  - At least 5°F (2.8°C) above dew point

**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: 70:1 or larger
- Pressure: 4,000-5,000 psi
- Hose: 1/2"
- Tip: 0.023"-.025"
- Gun: XTR
- Product Temperature: precondition material to 77-85°F (25-29°C)
- Filter: remove all filters

**Plural Component**

<table>
<thead>
<tr>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump: 70:1 proportioner with in-line heaters, 2:1 lowers and hose bundle configuration</td>
</tr>
<tr>
<td>Pressure: 4,000-5,000 psi at tip/gun</td>
</tr>
<tr>
<td>Heated Hose Bundle: 1/2&quot; Part A x 3/8&quot; Part B</td>
</tr>
<tr>
<td>Mix Manifold: 2 x 6&quot; static mixers directly attached</td>
</tr>
<tr>
<td>Integrated Hose: 3/8&quot; x 50 ft. max with in-line 6&quot; clean-up static mixer (do not recommend 1/4&quot; whip end)</td>
</tr>
</tbody>
</table>
- Tip: 0.023"-.025"
- Gun: XTR
- Heat Requirements: Part A: 110-130°F (43-54°C), Part B: 110-130°F (43-54°C), Hose Bundle: 130°F (54°C)
- Filter: remove all filters

**Brush and Roll**
- for small areas only

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

**DURA-PLATE® 6000 REINFORCED EPOXY**

**PART A** B62W710 WHITE
**PART B** B62V710 OFF WHITE HARDENER
**PART B** B62BV710 BLACK HARDENER

Revised: March 25, 2020

www.sherwin-williams.com/protective

continued on back
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, without introducing excessive air. Cut in periodically from container wall and bottom to avoid unmixed material.

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

<table>
<thead>
<tr>
<th>Recommended Spreading Rate per coat:</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet mils (microns)</td>
<td>40.0</td>
<td>125.0+</td>
</tr>
<tr>
<td>Dry mils* (microns)</td>
<td>40.0</td>
<td>125.0+**</td>
</tr>
<tr>
<td>~Coverage sq ft/gal (m²/L)</td>
<td>13 (0.3)</td>
<td>40 (1.0)</td>
</tr>
</tbody>
</table>

Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft: 1604 (39.4)

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

**Refer to NSF website for product restrictions or recommendations on dry film thickness, reducer restrictions and cure times.

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

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

<table>
<thead>
<tr>
<th></th>
<th>@ 35°F/1.7°C</th>
<th>@ 55°F/13°C</th>
<th>@ 77°F/25°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>To touch:</td>
<td>4 hours</td>
<td>3 hours</td>
<td>2 hours</td>
</tr>
<tr>
<td>To handle:</td>
<td>12 hours</td>
<td>5 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td>To recoat:</td>
<td>minimum:</td>
<td>10 hours</td>
<td>5 hours</td>
</tr>
<tr>
<td></td>
<td>maximum:</td>
<td>28 days</td>
<td>28 days</td>
</tr>
<tr>
<td>Cure to service:</td>
<td>10 hours</td>
<td>10 hours</td>
<td>10 hours</td>
</tr>
<tr>
<td>Pot life:</td>
<td>not</td>
<td>1 hour</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

*It is recommended that the product is kept above 55°F (13°C) for application and mixing. If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

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

DURA-PLATE® 6000 REINFORCED EPOXY

PART A B62W710 WHITE
PART B B62V710 OFF WHITE HARDENER
PART B B62BV710 BLACK HARDENER

APPLICATION BULLETIN

TRM.116

Performance Tips

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

For high build applications a crosshatch spray technique is best.

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, over thinning, climatic conditions, and excessive film build.

No reduction of material is recommended, as this can affect film build, appearance and performance.

Brush and roll application may be used for stripe coating, touch up, and small jobs where spraying may not be conducive, however this may require multiple coats to achieve target mil thickness.

Premix each individual component prior to application.

Pre-conditioning of material to between 77-85°F (25-29°C) is required and will aid in lower pressure needed for atomization and a smoother overall finish.

For Mortar Applications (Lining and Resurfacing): Clean, dry 20/40 mesh sand may be used at a mix ratio of 1:1 by volume or approximately 12 lbs/gallon.

For Immersion Service (if required): Holiday test in accordance with ASTM D 5162 for steel, or ASTM D 4787 for concrete.

When applying or repairing Dura-Plate 6000 in multiple coats, the surface should be checked for amine blush prior to applying the next coat or repair.

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

Cleanup 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.

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.

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.

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 MERCHANDABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

www.sherwin-williams.com/protective