ZINC CLAD® 200 PLUS
ORGANIC ZINC-RICH EPOXY PRIMER

Part A  B69A205
Part B  B69V200
Part F  B69D210

PRODUCT INFORMATION

Revised January 19, 2015

ZINC CLAD 200 Plus is a three-component, polyamide epoxy, zinc-rich coating formulated to meet class B slip resistance for bolted connections.

- Light and moderate corrosive atmospheric exposure
- Provides cathodic protection
- Damaged film exhibits "self-healing" properties
- Meets Class B requirements for slip coefficient and creep resistance, 0.56

PRODUCT CHARACTERISTICS

| Finish:          | Flat                        |
| Color:           | Gray-green                  |
| Volume Solids:   | 53% +/- 2% (mixed)          |
| Weight Solids:   | 83% +/- 2% (mixed)          |
| VOC (EPA method #24): | Unreduced: <380 g/l; 3.2 lb/gal Reduced 10%: <420 g/l; 3.5 lb/gal |
| Zinc Content in Dry Film: | 74.3% ±2% by weight |
| Mix Ratio:       | 3 components; pre-measured 5 gallons (18.9L) total mix |

Recommended Spreading Rate per coat:

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry mils (microns)</td>
<td>5.5 (138)</td>
<td>9.0 (225)</td>
</tr>
<tr>
<td>Coverage sq ft/gal (m²/L)</td>
<td>3.0 (75)</td>
<td>5.0 (125)</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>167 (4.1)</td>
<td>278 (6.8)</td>
</tr>
</tbody>
</table>

Zinc Content in Dry Film: 74.3% ±2% by weight

Mix Ratio: 3 components; pre-measured
5 gallons (18.9L) total mix

Drying Schedule @ 5.0 mils wet (125 microns):

<table>
<thead>
<tr>
<th>@ 40°F/4.5°C</th>
<th>@ 77°F/25°C</th>
<th>@ 120°F/49°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>To touch:</td>
<td>30 minutes</td>
<td>20 minutes</td>
</tr>
<tr>
<td>To handle:</td>
<td>12 hours</td>
<td>2 hours</td>
</tr>
<tr>
<td>To recoat:</td>
<td>12 hours</td>
<td>2 hours</td>
</tr>
<tr>
<td>To cure:</td>
<td>3 months</td>
<td>3 months</td>
</tr>
<tr>
<td></td>
<td>10 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

*14 day cure at 77°F (25°C) required for Class B Slip Compliance. Drying time is temperature, humidity, and film thickness dependent.

Pot Life: 8 hours
Sweat-in-Time: 1 hour 30 minutes

Shelf Life: 24 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C)

Flash Point: 57°F (13°C) PMCC, mixed
Reducer/Clean Up: Reducer R7K15

Recommended Uses

For use over properly prepared blasted steel.

- Fabrication shops
- Bridge and highway structures
- Stadiums and sports complexes
- Shop or field applications
- Top-coating is recommended for maximum protection.
- Not recommended for immersion service.

Performance Characteristics

Substrate*: Steel
Surface Preparation*: SSPC-SP10/NACE2
System Tested*: 1 ct. Zinc Clad 200 @ 3.0 mils (75 microns) dft 1 ct. Acrolon 218 HS @ 4.0 mils (100 microns) dft
*unless otherwise noted below

Test Name | Test Method | Results
---|-------------|---------
Abrasion Resistance* | ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load | 230 mg loss
Adhesion* | ASTM D4541, Patti Tester, F-4 Piston | 1,385 psi
Corrosion Weathering | ASTM D5894, 15 cycles, 5,000 hours, scribe | Rating 9 per ASTM D714 for blisters; Rating 9 per ASTM D610 for rusting
Dry Heat Resistance* | ASTM D2485, Method A, Quench Test @ 300°F (149°C) | 350°F (177°C)
Flexibility* | ASTM D522, 3/8" mandrel | Passes
Impact Resistance, Direct & Reverse | ASTM D2794, 1/4" blasted steel, 160 in. lbs | Passes
Moisture Condensation Resistance | ASTM D4585, 100°F (38°C), 5,000 hours | Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting
Pencil Hardness* | ASTM D3363 | 3H
Salt Fog Resistance | ASTM B117, 5,000 hours, scribe | Rating 8 per ASTM D714 for blistering; Rating 8 per ASTM D610 for rusting
Slip Coefficient* | AISC Specification for Structural Joints Using ASTM A325 or ASTM A490 Bolts | Class B, 0.56

* Primer Only - Refer to Slip Certification document

www.sherwin-williams.com/protective
continued on back
PRODUCT INFORMATION

PREPARED BY: ZINC CLAD® 200 PLUS
ORGANIC ZINC-RICH EPOXY PRIMER

RéCOMMENDED SYSTEMS

| Steel, catalyzed epoxy topcoat: | 1 ct. Zinc Clad 200 Plus | 3.0-5.0 (75-125) |
|-------------------------------|--------------------------|----------------|---|
| 1-2 cts. Macropoxy 646         | 5.0-10.0 (125-250)       |               |   |
| or 1-2 cts. Tile-Clad HS       | 2.5-4.0 (63-100)         |               |   |

| Steel, polyurethane topcoat:  | 1 ct. Zinc Clad 200 Plus | 3.0-5.0 (75-125) |
|-------------------------------|--------------------------|----------------|---|
| 1-2 cts. Acrolon 218 HS       | 3.0-6.0 (75-150)         |               |   |

| Steel, acrylic topcoat:       | 1 ct. Zinc Clad 200 Plus | 3.0-5.0 (75-125) |
|-------------------------------|--------------------------|----------------|---|
| 2 cts. Pro Industrial DTM Acrylic Coating | 2.5-4.0 (63-100) |               |   |

| Steel, waterbased urethane topcoat: | 1 ct. Zinc Clad 200 Plus | 3.0-5.0 (75-125) |
|-------------------------------------|--------------------------|----------------|---|
| 1 ct. Waterbased Tile-Clad          | 2.0-4.0 (50-100)         |               |   |
| 1-2 cts. Hydrogloss                 | 2.0-4.0 (50-100)         |               |   |

| Steel, waterbased epoxy topcoat:   | 1 ct. Zinc Clad 200 Plus | 3.0-5.0 (75-125) |
|------------------------------------|--------------------------|----------------|---|
| 1-2 cts. Waterbased Tile-Clad      | 2.0-4.0 (50-100)         |               |   |

The systems listed above are representative of the product’s use, other systems may be appropriate.

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-SP6/NACE 3, 2 mil (50 micron) profile
- Galvanizing: SSPC-SP7
- Weathered Zinc Rich Primer: Clean, dry, sound

Surface Preparation Standards

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>BS7079:1A</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>Sa 3</td>
<td>SP 5</td>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>SP 10</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>SP 7</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>SP 4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rusted</td>
<td>Rusted</td>
<td>Rusted</td>
<td>SP 2</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted</td>
<td>Rusted</td>
<td>Rusted</td>
<td>SP 2</td>
</tr>
</tbody>
</table>

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 120°F (49°C) maximum (air, surface, and material)
At least 5°F (2.8°C) above dew point
Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging: 5 gallons (18.9L), mixed
Part A: 3 gallons (11.3L)
Part B: 1 gallon (3.78L)
Part F: 60 lbs (27.2 Kg) zinc dust

Weight: 19.5 ± 0.2 lb/gal; 2.34 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.

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.

www.sherwin-williams.com/protective
**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.

Zinc rich coatings require direct contact between the zinc pigment in the coating and the metal substrate for optimum performance.

**Iron & Steel (atmospheric service):**

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

**Galvanized Steel:**

Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1 (recommended solvent is VM&P Naphtha). When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned.

**Weathered Zinc-Rich Primer:**

Remove zinc salts by either high pressure water washing and scrubbing with stiff bristle brush or sweep blast followed by water flush. Allow to dry.

**Note:** If blast cleaning with steel media is used, an appropriate amount of steel grit blast media may be incorporated into the work mix to render a dense, angular 1.5-3.0 mil (38-75 micron) surface profile, per Keane-Tator Surface Profile Comparator. A profile up to 4 mils (100 microns) is acceptable, however, coating must be applied to achieve a minimum of 3 mils (75 microns) dft. This method may result in improved adhesion and performance.

**Application Conditions**

- **Temperature:** 40°F (4.5°C) minimum, 120°F (49°C) maximum (air, surface, and material)
- **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.

- **Reducer/Clean up:** Reducer R7K15
- **Airless Spray**
  - **Pressure:** 2000 - 2300 psi
  - **Hose:** 3/8" ID
  - **Tip:** .019"
  - **Filter:** None
  - **Reduction:** As needed up to 10% by volume

- **Conventional Spray**
  - **Gun:** Binks 95
  - **Fluid Nozzle:** 68
  - **Air Nozzle:** 68P
  - **Atomization Pressure:** 50 psi
  - **Fluid Pressure:** 10 - 20 psi
  - **Reduction:** As needed up to 10% by volume

- **Brush**
  - **Reduction:** Not recommended

If specific application equipment is not listed above, equivalent equipment may be substituted.
ZINC CLAD® 200 PLUS
ORGANIC ZINC-RICH EPOXY PRIMER

APPLICATION BULLETIN

PART A B69A205
PART B B69V200
PART F B69D210
BASE
HARDENER
ZINC DUST

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.
Zinc Clad 200 Plus comes in 3 premeasured containers, which when mixed provides 5 gallons (18.9L) of ready-to-apply material.

Mixing Instructions:
Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine 3 gallons (11.3L) of Part A with 1 gallon (3.78L) of Part B, then add Part F (60 pounds / 27.2 Kg of zinc dust). Thoroughly agitate the mixture with power agitation. After mixing, pour through a 30-60 mesh screen. Allow the material to sweat-in as indicated. Re-stir before using.

Continuous agitation of mixture during application is required, otherwise zinc dust will quickly settle out.

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>5.5 (138)</td>
<td>9.0 (225)</td>
</tr>
<tr>
<td>Dry mils (microns)</td>
<td>3.0 (75)</td>
<td>5.0 (125)</td>
</tr>
<tr>
<td>~Coverage sq ft/gal (m²/L)</td>
<td>167 (4.1)</td>
<td>278 (6.8)</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>848 (20.8)</td>
<td></td>
</tr>
</tbody>
</table>

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

Drying Schedule @ 5.0 mils wet (125 microns):

<table>
<thead>
<tr>
<th>@ 40°F/4.5°C</th>
<th>@ 77°F/25°C</th>
<th>@ 120°F/49°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% RH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To touch:</td>
<td>30 minutes</td>
<td>20 minutes</td>
</tr>
<tr>
<td>To handle:</td>
<td>12 hours</td>
<td>2 hours</td>
</tr>
<tr>
<td>To recoat:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>minimum</td>
<td>12 hours</td>
<td>2 hours</td>
</tr>
<tr>
<td>maximum</td>
<td>3 months</td>
<td>3 months</td>
</tr>
<tr>
<td>To cure*:</td>
<td>10 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

*14 day cure at 77°F (25°C) required for Class B Slip Compliance.

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

Pot Life: 8 hours 6 hours 4 hours
Sweat-in-Time: 1 hour 30 minutes 15 minutes

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 Reducer R7K15. Clean hands and tools immediately after use with Reducer R7K15. 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, and skill of the applicator. Method of application, various surface irregularities, material lost during mixing, spillage, overthinining, climatic conditions, and excessive film build.

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

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer R7K15.

Keep pressure pot at level of applicator to avoid blocking of fluid line due to weight of material. Blow back coating in fluid line at intermittent shutdowns, but continue agitation at pressure pot.

Application above recommended film thickness may result in mud cracking.

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

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 all products we manufacture to be free from defects in material and workmanship in accordance with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or 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.