**PRODUCT INFORMATION**

**PRODUCT DESCRIPTION**

ZINC CLAD DOT® is a solvent-based, three component, inorganic ethyl silicate, zinc rich coating. This is a fast drying, high solids coating with 84%, by weight, of zinc dust in the dry film.

- Coating self-heals to resume protection if damaged
- Provides cathodic/sacrificial protection by the same mechanism as galvanizing
- Forms an inorganic barrier to moisture and solvents
- Meets Class B requirements for Slip & Creep Resistance, 0.65
- HAPS free as supplied

**Product Characteristics**

**Finish:** Flat

**Color:** Gray-Green

**Volume Solids:** 75% ± 2%, mixed

**Weight Solids:** 90% ± 2%, mixed

**VOC (EPA Method 24):**

- Unreduced: <310 g/L; 2.69 lb/gal
- Reduced 4%: <340 g/L; 2.84 lb/gal

**Zinc Content in Dry Film:** 84% ± 2% by weight

**Mix Ratio:** 3 components, premeasured

3.66 or 1.10 gallons mixed

**Recommended Spreading Rate per coat:**

<table>
<thead>
<tr>
<th>Wet mils</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.7</td>
<td>5.5</td>
</tr>
<tr>
<td>Dry mils</td>
<td>Maximum</td>
</tr>
<tr>
<td>2.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

~~Coverage sq ft/gal:~~

300 - 600

Dry film thickness in excess of 6.0 mils per coat is not recommended.

**Drying Schedule @ 4.0 mils wet @ 50% RH:**

<table>
<thead>
<tr>
<th>Test</th>
<th>Temperature</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch</td>
<td>@ 40°F</td>
<td>25 minutes</td>
</tr>
<tr>
<td></td>
<td>@ 77°F</td>
<td>20 minutes</td>
</tr>
<tr>
<td></td>
<td>@ 100°F</td>
<td>5 minutes</td>
</tr>
<tr>
<td>Touch</td>
<td>@ 40°F</td>
<td>1 hour</td>
</tr>
<tr>
<td></td>
<td>@ 77°F</td>
<td>20 minutes</td>
</tr>
<tr>
<td></td>
<td>@ 100°F</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Stack</td>
<td>@ 40°F</td>
<td>7 days</td>
</tr>
<tr>
<td></td>
<td>@ 77°F</td>
<td>24 hours</td>
</tr>
<tr>
<td></td>
<td>@ 100°F</td>
<td>8 hours</td>
</tr>
</tbody>
</table>

**Humidity:**

- ASTM D1654, Method 2, 4000 hours
- Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting

**Pencil Hardness:**

- ASTM D3363: 3H

**Recommended Uses**

For use over prepared blasted steel and galvanized steel in areas such as:

- Bridges
- Refineries
- Shop or field application
- Drilling rigs
- As a one-coat maintenance coating or as a permanent primer for severe corrosive environments (pH range 5-9)
- Ideal for application at low temperatures or service at high temperatures and/or humidity conditions
- Fresh and demineralized water immersion service (non-potable)

**Substrate**: Steel

**Surface Preparation**: SSPC-SP10

**System Tested**:

- 1 ct. Zinc Clad DOT @ 3.0 mils dft
- *unless otherwise noted below

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patti Adhesion</td>
<td>ASTM D4541</td>
<td>12.1 MPa = 1754 lb psi</td>
</tr>
<tr>
<td>Corrosion Weathering</td>
<td>ASTM D5894, 5040 hours</td>
<td>Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting</td>
</tr>
<tr>
<td>Corrosion Weathering'</td>
<td>ASTM D5894, 5040 hours</td>
<td>Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting</td>
</tr>
<tr>
<td>Direct Impact Resistance</td>
<td>ASTM D2794-92</td>
<td>60 in lbs.</td>
</tr>
<tr>
<td>Dry Heat Resistance</td>
<td>ASTM D2485</td>
<td>750°F</td>
</tr>
<tr>
<td>Flexibility</td>
<td>ASTM D522, 180° bend, 1&quot; mandrel</td>
<td>Passes</td>
</tr>
<tr>
<td>Humidity'</td>
<td>ASTM D1654, Method 2, 4000 hours</td>
<td>Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting</td>
</tr>
<tr>
<td>Pencil Hardness</td>
<td>ASTM D3363</td>
<td>3H</td>
</tr>
<tr>
<td>Salt Fog Resistance</td>
<td>ASTM B117, 5000 hours</td>
<td>Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting</td>
</tr>
<tr>
<td>Salt Fog Resistance'</td>
<td>ASTM B117, 5000 hours</td>
<td>Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting</td>
</tr>
</tbody>
</table>

**Footnotes:**

1 Zinc Clad DOT / Steel Spec Epoxy Intermediate / HS Poly

**Mixed Ratio:***

3 components, premeasured

3.66 or 1.10 gallons mixed

**Mixing Ratios:***

6.26 Revised: September 25, 2020

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ZINC CLAD® DOT
INORGANIC ZINC-RICH COATING

PART A  B69VZ20  BASE
PART B  B69VZ18  (For 3.66 Gal Kits)  ACCELERATOR
PART B  B69VZ18B (For 1.10 Gal Kits)  ACCELERATOR
PART F  B69D11  Zinc Dust

PRODUCT INFORMATION

**Recommended Systems**

<table>
<thead>
<tr>
<th>Steel, Epoxy Topcoat, Atmospheric:</th>
<th>Dry Film Thickness / ct. Mils</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ct. Zinc Clad DOT</td>
<td>2.0-4.0</td>
</tr>
<tr>
<td>1 ct. Macropoxy 646</td>
<td>3.0-10.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Steel, Polyurethane Topcoat, Atmospheric:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ct. Zinc Clad DOT</td>
</tr>
<tr>
<td>1 ct. Macropoxy 646</td>
</tr>
<tr>
<td>1 ct. Acrolon 218 HS</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 profile

Surface Preparation Standards

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO B591-1</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>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>SP 10</td>
<td>2</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>SP 7</td>
<td>3</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>SP 7</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rust Pitted &amp; Rusted</td>
<td>C St 2</td>
<td>SP 2</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rust Pitted</td>
<td>C St 3</td>
<td>SP 3</td>
</tr>
</tbody>
</table>

Do not tint.

**Application Conditions**

Temperature:
- Material: 20°F minimum, 95°F maximum
- Air: 20°F minimum, 115°F maximum
- Surface: 20°F minimum, 130°F maximum
- At least 5°F above dew point
- Relative humidity: 95% maximum
- Water misting may be required at humidities below 50%

Refer to product Application Bulletin for detailed application information.

**Ordering Information**

Packaging:
- 3.66 gallons mixed:
  - Part A: 2.17 gallons
  - Part B (Rex # B69VZ18): 0.25 gallons
  - Part F: 73 lb Zinc Dust
- 1.10 gallons mixed:
  - Part A: 0.65 gallons
  - Part B (Rex # B69VZ18B): 0.076 gallons
  - Part F: 22 lb Zinc Dust

Weight per gallon: 26.7 ± 5% lb, 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.

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**Surface Preparations**

Zinc rich coatings require direct contact between the zinc pigment in the coating and the metal substrate for optimum performance. Surface must be dry, free from oil, dirt, dust, mill scale or other contaminants to ensure adequate adhesion.

**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). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

**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 - 2.0 mil surface profile. This method may result in improved adhesion and performance.

---

**Application Bulletin**

**ZINC CLAD® DOT**

**INORGANIC ZINC-RICH COATING**

<table>
<thead>
<tr>
<th>Part A</th>
<th>B69VZ20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part B</td>
<td>B69VZ18 (For 3.66 Gal Krs)</td>
</tr>
<tr>
<td>Part B</td>
<td>B69VZ18B (For 1.10 Gal Krs)</td>
</tr>
<tr>
<td>Part F</td>
<td>B69D11</td>
</tr>
</tbody>
</table>

**Base**

**Accelerator**

**Accelerator**

**Zinc Dust**

---

**Application Conditions**

| Temperature | Material: 20°F minimum, 95°F maximum |
| Air: 20°F minimum, 115°F maximum |
| Surface: 20°F minimum, 130°F maximum |
| Relative humidity: 95% maximum |
| Water misting may be required at humidities below 50% |

---

**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**

Above 70°F .................... R7K111 (HAPS Free), R2KT4
Below 70°F .................... R7K111 (HAPS Free), R2K4, R2K5, R6K9

**Airless Spray**

(Use Teflon packings and continuous agitation)

- **Unit:** Graco 30:1
- **Pressure:** 2700 psi
- **Hose:** 3/8" ID
- **Tip:** .017" - .021"
- **Filter:** 30 mesh
- **Reduction:** As needed up to 4% by volume*

For continuous operation in larger areas, use Speeflo Airless Commander Zinc Pump. Set ball checks to maximum travel for viscous material.

**Conventional Spray**

(continuous agitation required)

- **Gun:** Binks 95
- **Fluid Nozzle:** 66
- **Fluid Hose:** 1/2" ID, 50 ft maximum
- **Air Nozzle:** 63PB
- **Air Hose:** 1/2" ID, 50 ft maximum
- **Atomization Pressure:** 25 psi
- **Fluid Pressure:** 10-20 psi
- **Reduction:** As needed up to 4% by volume*

*4% maximum for 340 g/L VOC compliance, but can be reduced up to 15%

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.

**Brush**

For touch up in small areas only

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

---

*continued on back*
ZINC CLAD® DOT
INORGANIC ZINC-RICH COATING

APPLICATION BULLETIN

APPLICATION PROCEDURES

Surface preparation must be completed as indicated. Zinc Clad DOT comes in premeasured containers, which when mixed provides ready-to-apply material.

Mixing Instructions:
Thoroughly agitate Binder, Part A. Using continuous air driven agitation, slowly mix all of Zinc Dust, Part F, into all of Binder Part A until mixture is completely uniform. Continue agitation and add Part B. After mixing, pour mixture through 30-mesh screen. Mixed material must be used within 8 hours. Do not mix previously mixed material with new. No “sweat-in” period is required.

If reducer solvent is used, add only after components have been thoroughly mixed.

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:</td>
<td>2.7</td>
<td>5.5</td>
</tr>
<tr>
<td>Dry mils:</td>
<td>2.0</td>
<td>4.0</td>
</tr>
<tr>
<td>~Coverage sq ft/gal:</td>
<td>300</td>
<td>600</td>
</tr>
</tbody>
</table>

Dry film thickness in excess of 6.0 mils per coat is not recommended.

Drying Schedule @ 4.0 mils wet @ 50% RH:

<table>
<thead>
<tr>
<th>To handle</th>
<th>To stack</th>
<th>To touch</th>
<th>To topcoat</th>
<th>Pot Life</th>
<th>Sweat-in-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hour</td>
<td>6 hours</td>
<td>25 minutes</td>
<td>7 days</td>
<td>8 hours</td>
<td>None required, but material should be mixed for at least 5 minutes before use.</td>
</tr>
</tbody>
</table>

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

CLEAN UP INSTRUCTIONS

Clean spills and splatters immediately with Reducer R2KT4, 150 Flash Naphtha or R2K4, Xylene. Clean hands and tools immediately after use with Reducer R2KT4, 150 Flash Naphtha or R2K4, Xylene. 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.

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

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