COROTHANE® I GALVAPAC
1K ZINC PRIMER

PRODUCT INFORMATION

COROTHANE I GALVAPAC 1K ZINC PRIMER is a low VOC, moisture curing urethane zinc-rich primer. Designed for low temperature application to steel surfaces.

- Low temperature application - down to 20°F (-7°C)
- NSF approved to Standard 61 for potable water storage
- Abrasion and chemical resistant
- Easy to apply and recoat
- Usable for immersion service with recommended topcoated
- Resistant to mudcracking
- Meets Class B requirements for Slip Coefficient and Creep Resistance .54
- Enhanced coating strength and edge protection with micaceous iron oxide addition
- Meets requirements of SSPC Paint Spec No. 40 for zinc rich moisture cure Urethane primer
- As a primer in a urethane coating system for bridges, tanks, chemical, and marine structures
- Ideal for priming water assisted abrasive blasted surfaces where flash rusting or blooming limits the use of conventional zinc rich coatings
- Acceptable for use with cathodic protection with select topcoats
- Conforms to AWWA D102 Inside Coating System #3 (ICS-3), Inside Coating System #5 (ICS-5), Outside Coating System #2 (OCS-2), Outside Coating System #3 (OCS-3), Outside Coating System #4 (OCS-4), and Outside Coating System #6 (OCS-6)
- A component of INFINITANK

PRODUCT CHARACTERISTICS

Finish: Flat
Color: Gray
Volume Solids: 67% ± 2%
Weight Solids: 91.7% ± 2%
VOC (calculated): <340 g/L; 2.8 lb/gal
Zinc Content in Dry Film: 83% ±2% by weight

Recommended Spreading Rate per coat:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet mils (microns)</td>
<td>4.5 112</td>
<td>68 170</td>
<td>3.0 75</td>
<td>60 150</td>
</tr>
<tr>
<td>Dry mils (microns)</td>
<td>3.0 75</td>
<td>40 100</td>
<td>2.0 50</td>
<td>40 100</td>
</tr>
<tr>
<td>Coverage sq ft/gal (m²/L)</td>
<td>268 6.5</td>
<td>358 8.8</td>
<td>268 6.5</td>
<td>536 13.1</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L)</td>
<td>1072 (26.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Recommended Systems on reverse side

PERFORMANCE CHARACTERISTICS

Test Name | Test Method | Results
----------|-------------|-----
Abrasion Resistance | ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load | 45 mg loss
Adhesion (GalvaPac only) | ASTM D4541; ASTM D3359 | 1943 psi (ASTM D4541); 5B (ASTM D3359)
Corrosion Weathering (GalvaPac only) | ASTM D5894, 15 cycles, 5000 hours | Rating 10 per ASTM D610 Rusting (field); Rating 10 per ASTM D714 Blistering
Direct Impact Resistance (GalvaPac only) | ASTM G14 | 160 in. lb.
Dry Heat Resistance | ASTM D2485 | 300°F (149°C) continuous, 350°F (177°C) intermittent
Flexibility | ASTM D522, 180° bend, 1/4" mandrel | Passes
Immersion (GalvaPac/2 cts Macropoxy 646 NSF) | 5 year potable water | Rating 10 per ASTM D610 for Rusting; Rating 10 per ASTM D714 for Blistering
Moisture Condensation Resistance (GalvaPac only) | ASTM D4585, 100°F (38°C), 4000 hours | Rating 10 per ASTM D610 for Rusting; Rating 10 per ASTM D714 for Blistering
Pencil Hardness | ASTM D3363 | 2H (zinc only)
Salt Fog Resistance (GalvaPac only) | ASTM B117, 5000 hours | Rating 10 per ASTM D610 for Rusting; Rating 10 per ASTM D714 for Blistering
Slip Coefficient* (GalvaPac only) | AISC Specification for Structural Joints Using ASTM A325 or ASTM A490 Bolts | Class B, .54, tension and creep <.005*
Wet Heat Resistance | Non-immersion | 190°F (88°C)

*Refer to Slip Certification document

Shelf Life: 12 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C)
Flash Point: 94°F (34°C), PMCC
Reducer/Clean Up:
Reducer #15, R7K15 (or)
Reducer #111, R7K111 for non-NSF, VOC exempt applications

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>@ 100°F/38°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% RH</td>
<td>45 minutes</td>
<td>20 minutes</td>
</tr>
<tr>
<td>To touch</td>
<td>8 hours</td>
<td>4-6 hours</td>
</tr>
<tr>
<td>To recoat (minimum), atmospheric service</td>
<td>24 hours</td>
<td>12 hours</td>
</tr>
<tr>
<td>To recoat (maximum)</td>
<td>12 months</td>
<td>12 months</td>
</tr>
<tr>
<td>To cure, atmospheric service</td>
<td>5 days</td>
<td>3 days</td>
</tr>
<tr>
<td>To cure, immersion service</td>
<td>14 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

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

For Potable Water Service, allow a minimum cure time of 7 days at 77°F (25°C) prior to placing in service. Sterilize and rinse per AWWA C652.

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45 mg loss
1943 psi (ASTM D4541); 5B (ASTM D3359)
Rating 10 per ASTM D610 Rusting (field); Rating 10 per ASTM D714 Blistering
160 in. lb.
Passes
Rating 10 per ASTM D610 for Rusting; Rating 10 per ASTM D714 for Blistering
2H (zinc only)
Rating 10 per ASTM D610 for Rusting; Rating 10 per ASTM D714 for Blistering
Class B, .54, tension and creep <.005*
190°F (88°C)
**COROTHANE® I GALVAPAC**

1K ZINC PRIMER

B65G11

**PRODUCT INFORMATION**

**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, 2 mil (50 micron) profile preferred
  - Immersion, with recommended topcoat: SSPC-SP10/NACE 2, 2 mil profile

**Surface Preparation Standards**

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>BS ISO 8501</th>
<th>Swedish Std. SS0555900</th>
<th>SSPC NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>SA 3</td>
<td>SA 3</td>
<td>SP 2</td>
</tr>
<tr>
<td>Near White Metal</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>SP 6</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>SA 1</td>
<td>SA 1</td>
<td>SP 7</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rusted</td>
<td>C St 2</td>
<td>SP 2</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted</td>
<td>C St 2</td>
<td>SP 2</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td>C St 3</td>
<td>SP 3</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td>D St 3</td>
<td>SP 3</td>
</tr>
</tbody>
</table>

**TINTING**

Do not tint.

**APPLICATION CONDITIONS**

- Temperature: air and surface 20°F (-7°C) minimum, 120°F (49°C) maximum
- Material: 45°F (7°C) minimum
- Do not apply over surface ice
- Relative humidity: 30% minimum, 99% maximum

Refer to product Application Bulletin for detailed application information.

**ORDERING INFORMATION**

- Packaging: 3 gallon (11.3L) container
- Weight: 28.5 ± 0.2 lb/gal; 3.42 Kg/L

**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.

**RECOMMENDED SYSTEMS**

<table>
<thead>
<tr>
<th>Dry Film Thickness / ct.</th>
<th>Mils (Microns)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immersion Service (Potable Water), Steel:</td>
<td></td>
</tr>
<tr>
<td>*AWWA D102: Inside Coating System No. 5</td>
<td></td>
</tr>
<tr>
<td>minimum AWWA</td>
<td>10.0 (250)</td>
</tr>
<tr>
<td>1 ct. Corothane I GalvaPac 1K Zinc Primer</td>
<td>2.0 (50)</td>
</tr>
<tr>
<td>2 ct. Macropoxy 646 PW</td>
<td>4.0 (100)</td>
</tr>
<tr>
<td>Immersion Services, Potable Water, Steel:</td>
<td></td>
</tr>
<tr>
<td>1 ct. Corothane I GalvaPac 1K Zinc Primer</td>
<td>3.0-4.0 (75-100)</td>
</tr>
<tr>
<td>2 cts. Macropoxy 646 PW</td>
<td>5.0-10.0 (125-250)</td>
</tr>
<tr>
<td>Immersion Service (Non-Potable Water), Steel:</td>
<td></td>
</tr>
<tr>
<td>*AWWA D102 Outside Coating System No.2</td>
<td></td>
</tr>
<tr>
<td>minimum AWWA</td>
<td>7.5 (188)</td>
</tr>
<tr>
<td>1 ct. Corothane I GalvaPac 1K Zinc Primer</td>
<td>3.0 (75)</td>
</tr>
<tr>
<td>1 ct. Corothane Ironox B</td>
<td>3.0 (75)</td>
</tr>
<tr>
<td>1 ct. Corothane I HS</td>
<td>1.5 (40)</td>
</tr>
<tr>
<td>*AWWA D102: Outside Coating System No. 6</td>
<td></td>
</tr>
<tr>
<td>minimum AWWA</td>
<td>6.0 (150)</td>
</tr>
<tr>
<td>1 ct. Corothane I GalvaPac 1K Zinc Primer</td>
<td>2.0 (50)</td>
</tr>
<tr>
<td>1 ct. Macropoxy 646 NSF</td>
<td>2.0 (50)</td>
</tr>
<tr>
<td>1 ct. Acrolon 218HS</td>
<td>2.0 (50)</td>
</tr>
<tr>
<td>Steel: Rapid Return to Service</td>
<td></td>
</tr>
<tr>
<td>1 ct. Corothane I GalvaPac 1K Zinc Primer</td>
<td>3.0-4.0 (75-100)</td>
</tr>
<tr>
<td>1 ct. Fast Clad Urethane</td>
<td>6.0-9.0 (150-225)</td>
</tr>
</tbody>
</table>

Acceptable for use over Zinc Clad PCP Ultra. Topcoat required.

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

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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/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Remove all weld spatter and round all sharp edges by grinding. Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

**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. 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.

**Application Conditions**

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1 B57079-A1</th>
<th>Swedish Std. SIS055900</th>
<th>SSPC</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>Sa 3</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>Sa 2.5</td>
<td>SP 10</td>
<td>2</td>
</tr>
<tr>
<td>Commercial Blast</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>C St 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td>D St 2</td>
<td>SP 3</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted</td>
<td>C St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td>D St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
</tbody>
</table>

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 #15, R7K15 (or) Reducer #111, R7K111 for non-NSF, VOC exempt applications

**Airless Spray**
- Pump: 30:1
- Pressure: 2500 - 3000 psi
- Hose: 1/4" ID
- Tip: .017" - .019"
- Filter: 60 mesh
- Reduction: As needed up to 10% by volume

**Conventional Spray**
- Unit: Graco 900, Binks 95
- Gun: 900, 95
- Fluid Nozzle: 070, 66/65
- Air Nozzle: 947, 66PR
- Atomization Pressure: 60-70 psi
- Fluid Pressure: 15-20 psi
- Reduction: As needed up to 10% by volume

**Brush**
- Brush: Natural bristle
- Reduction: As needed up to 10% by volume

**Roller**
- Cover: 3/8" natural or synthetic with solvent resistant core
- Reduction: As needed up to 10% by volume

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

Surface preparation must be completed as indicated.

Mix material thoroughly prior to use with a low speed power agitator until completely uniform. After mixing, pour through a 50 mesh filter.

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

<table>
<thead>
<tr>
<th>Recommended Spreading Rate per coat:</th>
<th>Standard AWWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min.</td>
<td>Max.</td>
</tr>
<tr>
<td>Wet mils (microns)</td>
<td>4.5</td>
</tr>
<tr>
<td>Dry mils (microns)</td>
<td>3.0</td>
</tr>
<tr>
<td>Coverage sq ft/gal (m²/L)</td>
<td>268</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal @ 1 mil/25 micron dft</td>
<td>1072 (26.2)</td>
</tr>
</tbody>
</table>

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

*See Recommended Systems on reverse side

**Drying Schedule @ 5.0 mils wet (125 microns):**

<table>
<thead>
<tr>
<th>At 40°F/4.5°C</th>
<th>At 77°F/25°C</th>
<th>At 100°F/38°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% RH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To touch:</td>
<td>45 minutes</td>
<td>20 minutes</td>
</tr>
<tr>
<td>To recoat (minimum), atmospheric service:</td>
<td>8 hours</td>
<td>4-6 hours</td>
</tr>
<tr>
<td>To recoat (minimum), immersion service:</td>
<td>24 hours</td>
<td>12 hours</td>
</tr>
<tr>
<td>To recoat (maximum):</td>
<td>12 months</td>
<td>12 months</td>
</tr>
<tr>
<td>To cure, atmospheric service:</td>
<td>5 days</td>
<td>3 days</td>
</tr>
<tr>
<td>To cure, immersion service:</td>
<td>14 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

For Potable Water Service, allow a minimum cure time of 7 days at 77°F (25°C) prior to placing in service. Sterilize and rinse per AWWA C652.

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 #15, R7K15 or R7K111. Follow manufacturer's safety recommendations when using any solvent.

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**PERFORMANCE TIPS**

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

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, overthinning, climatic conditions, and excessive film build.

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

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer #15, R7K15 or R7K111.

Pour a small amount of Reducer #15, R7K15 or R7K111 over the top of the paint in the can to prevent skinning or gelling.

Place a temporary cover over the pail to keep excessive moisture, condensation, fog, or rain from contaminating the coating.

It is recommended that partially used cans not be sealed/closed for use at a later date.

An intermediate coat is recommended to provide a uniform appearance of the topcoat.

Not for use with cathodic protection except as indicated under the recommended systems.

Corothane I KA Accelerator is acceptable for use (except NSF applications). See data page 5.98 for details.

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

**SAFETY PRECAUTIONS**

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