ZINC PLATE 3100
WATERBASED PRE-CONSTRUCTION PRIMER

PRODUCT DESCRIPTION

ZINC PLATE 3100 is a two-package, waterborne, inorganic zinc pre-construction primer designed to provide excellent welding and weathering properties. It provides the end user added flexibility in shops & facilities where VOC & HAPS emissions are restrictive. Zinc Plate 3100 brings a number of features & benefits, among them are:

- No HAPS
- Fast dry
- High speed weldability and cutting
- Optimized for automated plate line application
- Heat resistant
- Provides corrosion protection
- Long term weathering
- Long pot life (up to 24 hours)
- Can be sprayed via standard airless, air-assisted airless, HVLP and conventional spray equipment
- Compatible with manual, semi-automatic and automated welding techniques

PRODUCT CHARACTERISTICS

Finish: Flat
Color: Gray
Weight Solids: 59% ± 2% mixed
VOC (EPA Method 24): <50 g/L ; 0.42 lb/gal
Zinc Content in Dry Film: 46.4% by weight

Mix Ratio: 2 components; premeasured
A:F 1:1 by weight 4.16 gallons mixed

Recommended Spreading Rate per coat:

- Wet mils (microns) 1.7 (43)
- Dry mils (microns) 0.6 (15)
- Theoretical coverage sq ft/gal (m²/L) 802 (19.7)

*Recommended DFT is for blasted steel having an angular and jagged surface profile of ~2 mils (50 microns). For extended weathering, a higher DFT may be specified, but weld quality & cutting speeds may be inhibited.

Drying Schedule @ 1.7 mils wet (43 microns):

- To touch: 5 minutes
- To handle: 10 minutes
- To topcoat: 3 hours
- To cure: 7 days

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

Sweat-in-Time: None required
Pot Life: 12-24 hours*

*Temperature, humidity, and volume dependent, among other factors.

Recommended Uses:

- Shipbuilding
- Petrochemical tank construction
- Water storage and Water treatment tank fabrication
- Structural steel
- Protection of steel plate and shapes during storage, transportation and fabrication

PRODUCT CHARACTERISTICS (Cont’d)

Shelf Life: Part A - 9 months, unopened
Part F - 24 months, unopened

Flash Point: N/A
Reducer/Clean Up: Water

*Temperature, humidity, and volume dependent, among other factors.

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

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<tr>
<th><strong>Recommended Systems</strong></th>
<th><strong>Surface Preparation</strong></th>
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<td><strong>Steel/Atmospheric and Immersion Service:</strong></td>
<td><strong>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.</strong></td>
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<td>1 ct. Zinc Plate 3100</td>
<td>Zinc rich coatings require direct contact between the zinc pigment in the coating and the metal substrate for optimum performance.</td>
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<tr>
<td>1 or 2 cts. Recommended Topcoat</td>
<td>Minimum recommended surface preparation:</td>
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**Steel/Atmospheric and Immersion Service:**
- SSPC-SP10/NACE 2, 2 mil (50 micron) maximum profile
- Sa 2½ Very Thorough Blast Cleaning (ISO 8501-1) NACE 2

| **Temperature:** 50°F (10°C) minimum, 110°F (43°C) maximum (air, surface, and material) At least 5°F (2.8°C) above dew point |
| **Relative humidity:** 30% minimum, 85% maximum |

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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.

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

Steel/Atmospheric and 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 maximum). Prime any bare steel the same day 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 2 mils (50 micron) maximum surface profile. This method may result in improved adhesion and performance.

Surface Preparation Standards

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1/B57179-A1</th>
<th>Swedish Std.</th>
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</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>S3</td>
<td>S3</td>
<td>S5</td>
<td>1</td>
</tr>
<tr>
<td>Near White Metal</td>
<td>S2.5</td>
<td>S2.5</td>
<td>S10</td>
<td>2</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>S2</td>
<td>S2</td>
<td>S6</td>
<td>3</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>S1</td>
<td>S1</td>
<td>S7</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>C Stir</td>
<td>C Stir</td>
<td>SP</td>
<td>2</td>
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<tr>
<td>Rusted</td>
<td>D Stir</td>
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<td>SP</td>
<td>3</td>
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<td>Power Tool Cleaning</td>
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Relative humidity: 30% minimum, 85% maximum

Applicator 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: Water

Airless Spray
- Pump: 30:1
- Pressure: 800-1,400 psi
- Hose: 1/4" ID
- Tip: 517
- Filter: 60 mesh
- Reduction: As needed up to 10% by volume with Water

Conventional Spray (HVLP)
- Gun: Accuspray 125Z - 1976 Derlin Fluid Gun
- Fluid Nozzle: 72
- Needle: 72
- Air Nozzle: 63PB
- Atomization Pressure: 55 - 60 psi
- Fluid Pressure: 15 - 30 psi
- Reduction: Not required

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 only

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

Surface preparation must be completed as indicated.

Zinc Plate 3100 comes in 2 premeasured containers which when mixed provides 4.16 gallons (15.7L) of ready-to-apply material.

**Mixing Instructions:** Mix paint thoroughly with low speed power agitation prior to use. While mixing Part A, with power agitation, add zinc dust, Part F. **Do not add vehicle to zinc dust.** Add water reducer after both components have been thoroughly mixed. After mixing, pour through a 40-mesh screen.

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

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

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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 water. Clean tools immediately after use with water. 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**

Any oxide on the zinc surface due to weathering exposure must be removed prior to topcoating.

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 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 water.

Not recommended for severe acid or alkali exposures.

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

**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**

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