

## Epoxy Zinc-Rich

### Features

- High load epoxy zinc primer
- Provides excellent galvanic protection
- Meets Class "B" slip co-efficient and creep resistance criteria for use on bolted connection faying surfaces
- Excellent undercutting resistance
- VOC compliant
- Easy to topcoat
- Rapid and extended recoat windows
- Excellent adhesion to hand tool cleaned surfaces (SSPC-SP 11)

### Typical Uses

ZincGard 1500 epoxy zinc rich primer is a rapid recoat primer that provides excellent corrosion protection and undercutting protection.

Excellent for use in industrial, coastal, marine and freshwater environments. May be used on structural steel, steel tanks, offshore platforms, barges, refineries, petrochemical plants, power plants, railcars, pulp & paper mills and other areas as recommended. May also be used to field touch-up inorganic zinc and/or provide galvanic protection for properly prepared steel substrates.

### Qualifications

ZincGard 1500 meets Class "B" requirements for slip co-efficient and creep resistance as set forth in the Specification for Structural Joints using A325 or A490 Bolts, in accordance with Research Council on Structural Connections, Appendix A.

Exceed requirements of SSPC-PS 12.00

### Performance Data

Salt Spray (ASTM B 117) 7200 hours  
Plane blistering or rusting: none

### Physical Data

Abrasion Resistance (ASTM D 4060)	
1 kg. Load, 1000 cycles	weight loss
CS 17 wheel	225 mg
Impact Resistance (ASTM D 2794)	
Direct impact	80 in-lbs.
Temperature resistance (dry)	
Continuous	250°F
Non-continuous	300°F
Adhesion (ASTM D 4541)	3912 psi
<b>Theoretical volume solids of mixed material (ASTM D 2697)</b>	<b>66% ±1%</b>
<b>Theoretical coverage of mixed gal. (1 mil)</b>	<b>1060 sq. ft</b>
<b>Volatile Organic Content</b>	
Unthinned	2.4 lbs./gal.
Reducer 1 @ 1 pint/gal.	3.3 lbs./gal.
Reducer 2 @ 1 pint/gal.	3.3 lbs./gal.
Zinc in dry film	80%

### Resistance

ZincGard 1500 prevents rusting of steel in a corrosive environment with a pH range of 5 to 9. Topcoats should be used for pH beyond these limits. When topcoated, ZincGard 1500 effectively reduces undercutting from a damaged area. The following is a guide to the proper selection:

<u>Exposure</u>	<u>Immersion</u>	<u>Splash &amp; Spillage</u>	<u>Fumes</u>
Acidic	NR	Good*	Excellent*
Alkaline	NR	Good*	Excellent*
Solvents	NR	Good*	Excellent*
Salt water	Excellent*	Excellent*	Excellent*
Water	Excellent*	Excellent*	Excellent*

NR=Not Recommended

\*With suitable topcoat

### Film Thickness (per coat)

**Dry film thickness: 2 to 4 mils**

**Wet film thickness: 4 to 6 mils**

**Theoretical Coverage: 353 sq. ft. @ 3 mils**

### Substrates

ZincGard 1500 is applied directly to properly prepared steel as the primer. Direct contact with the steel substrate is required to provide optimal galvanic protection to the underlying steel surface.

### Topcoats

ZincGard 1500 is an easy to coat primer using either an epoxy or urethane. EpoxyGrip 2000 is the recommended epoxy topcoat for a two-coat application. EpoxyGrip 2100 can be used as an intermediate coat when added protection is required. UreGrip 3300 is recommended as a direct topcoat to ZincGard 1500. UreGrip 3000 is recommended as the final coating over the epoxy or urethane intermediate when a high gloss finish is desired.

### Color

ZincGard 1500 is supplied as a yellow base, which, when mixed with the zinc dust, produces a dark green color contrasting with gray blasted steel. The gloss is a matte finish.

### Shipping Data

<u>Packaging unit</u>	<u>1 gal.</u>	<u>5 gal.</u>
ZincGard 1500 Base	.36 gals.	1.8 gals.
ZincGard 1500 Converter	.36 gals.	1.8 gals.
ZincGard Filler	16 lbs.	80 lbs.

Shipping weights (approx.)

ZincGard 1500 kit	25 lbs.	125 lbs.
	<u>1 gal.</u>	<u>5 gal.</u>
Reducer 1	8 lbs.	40 lbs.
Reducer 2	9 lbs.	45 lbs.

Flash Point: (Setaflash)

Base	33°F
Converter	81°F
Reducer 1	53°F
Reducer 2	113°F

Shelf Life: 3 years for the base and 3 years for the Zinc Filler when stored inside at 40°F to 110°F.

# ZincGard® 1500 Product Data Sheet

## Surface Preparation

Remove oil and grease from the steel surface with solvent or a commercial cleaner, which does not leave a residue, according to SSPC-SP1. Abrasive blast to a Commercial finish per SSPC-SP 6 to obtain a 1-3 mil blast profile. For immersion, abrasive blast to a Near-white finish per SSPC-SP 10 to obtain a 1-3 mil blast profile. For field touch-up, prepare the substrate according to SSPC-SP 11.

## Mixing

Power mix Base and Converter components, then slowly blend ZincGard Filler into the Base and mix until uniform. Avoid forming a dust cloud while adding powder. Do not mix partial kits.

	<u>1 Gal. Kit</u>	<u>5 Gal. Kit</u>
ZincGard 1500 Base	.36 gallons	1.8 gallons
ZincGard 1500 Converter	.36 gallons	1.8 gallons
ZincGard Filler	16 pounds	80 pounds

Note: The converter forms a soft crust on the surface, which is readily dispersed with power mixing. After mixing in the zinc filler, strain through a wire screen or cheesecloth.

## Thinning

Thinning is not required for most applications. However, in hot windy conditions, ZincGard 1500 may be thinned up to 1 pint/gal. Reducer 1 is recommended for application temperatures below 70°F and Reducer 2 is recommended for application temperatures above 70 °F.

## Pot Life

Six hours at 75° and less at higher temperatures.

## Applications Conditions

	<u>Material</u>	<u>Surface</u>	<u>Ambient</u>
Minimum	50°F	50°F	50°F
Maximum	90°F	110°F	110°F

Special thinning and application procedures are required outside these temperatures. ZincGard 1500 should be applied to a dry surface. Surface temperature should be 5°F above dew point.

## Application Equipment

Conventional Spray: Industrial sprayers such as DeVilbiss MBC gun with 2E or 704E cap, or a Binks18 gun with a 66SSx67PB nozzle setup having a double regulated pressure pot, 3/8 " I.D. minimum material hose, 50' maximum material hose length are recommended. An agitated pressure pot is recommended.

Airless Spray: Sprayer such a Graco's Bulldog with a 30:1 ratio and a .017-.021 tip is recommended. A 30 mesh inline filter is recommended.

Power Mixer: Use only explosion proof power mixers.

Brush and roller: Use medium bristle brush and short nap roller for touchup and small areas only.

## Drying Time

The following minimum times are based on a 3 mil DFT and adequate air ventilation. Higher thickness and reduced air ventilation increase drying times.

<u>Surface Temperature</u>	<u>To Touch</u>	<u>To Handle or To Topcoat</u>
50°F	12 hrs.	32 hrs.
60°F	6 hrs.	16 hrs.
70°F	3 hr.	8 hrs.
80°F	2 hrs.	5 hrs.
90°F	1 hr.	3 hrs.

ZincGard 1500 can be applied in a wet-on-wet manner with either EpoxyGrip 2000 or EpoxyGrip 2100, which eliminates the dry time between coats.

## Cleanup

Cleanup with Reducer 1 or Reducer 2.

1/22/03

CAUTION: Read and follow all caution statements on this product data sheet and on the Material Safety Data Sheet for this product.

CONTAINS FLAMMABLE SOLVENTS. Vapors are heavier than air and will accumulate. Extinguish all flames and prevent all sparks. All electrical equipment and installations should be made and grounded in accordance with the National Electrical Code. Where explosion hazards exist workers are required to use non-sparking tools and wear non-sparking shoes.

HEALTH: In confined spaces workers must wear fresh airline respirators.

WARRANTY: Any recommendation of U.S. Coatings contained herein, covering use, utilization, chemical or physical properties and other qualities of the products sold is believed reliable; however U.S. Coatings makes no warranty or representation with respect thereto. Use or application is at the discretion of the Buyer without liability or obligation whatsoever of U.S. Coatings.