



Protective & Marine Coatings

ZINC CLAD® 200 ORGANIC ZINC-RICH EPOXY PRIMER

PART A	B69A200	BASE
PART B	B69V200	HARDENER
PART F	B69D210	ZINC DUST

Revised: May 9, 2022

PRODUCT INFORMATION

6.12

PRODUCT DESCRIPTION

ZINC CLAD 200 is a three-component, polyamide epoxy, zinc-rich coating formulated to meet the SSPC Paint Spec 20.

- Meets the composition and performance requirements of SSPC Paint Spec 20.
- Light and moderate corrosive atmospheric exposure
- Provides cathodic protection
- Damaged film exhibits "self-healing" properties
- Meets Class A requirements for slip coefficient and creep resistance, 0.38

PRODUCT CHARACTERISTICS

Finish:	Flat
Color:	Gray-green
Volume Solids:	54% 2% (mixed)
Weight Solids:	84% 2% (mixed)
VOC (EPA method #24):	<420 g/l; 3.5 lb/gal, mixed
Zinc Content in Dry Film:	80% ±2% by weight
Mix Ratio:	3 components; pre-measured 4.5 gallons (17.0) total mix

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	5.5 (138)	9.0 (225)
Dry mils (microns)	3.0 (75)	5.0 (125)
~Coverage sq ft/gal (m ² /L)	170 (4.16)	288 (7.05)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	864 (21.1)	

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):

	@ 35°F/1.7°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	30 minutes	20 minutes	10 minutes
To handle:	12 hours	2 hours	40 minutes
To recoat:			
minimum:	12 hours	2 hours	40 minutes
maximum:	12 months	12 months	12 months
To cure:	10 days	7 days	7 days

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

Shelf Life:	24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C)
Flash Point:	72°F (22°C), Closed Cup, 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.
- Drilling rigs
- Piping
- Refineries
- Barges and ships

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10

System Tested*:

- 1 ct. Zinc Clad 200 @ 4.0 mils (100 microns) dft
- 1 ct. Acrolon 218 HS @ 5.0 mils (125 microns) dft

*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance (primer only)	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	206 mg loss
Adhesion	ASTM D4541, Patti Tester, F-4 Piston	1464 psi
Corrosion Weathering	ASTM D5894, 6 cycles, 2000 hours	Rating 10 per ASTM D610 for rusting (field)
Direct Impact Resistance	ASTM D2794	45 in. lbs.
Dry Heat Resistance (primer only)	ASTM D2485, Method A, Quench Test @ 300°F (149°C)	Pass
Moisure Condensation Resistance	ASTM D4585, 100°F (38°C), 4872 hours	Rating 10 per ASTM D610 for Rusting; Rating 10 per ASTM D714 for Blistering
Pencil Hardness (primer only)	ASTM D3363	2H
Salt Fog Resistance	ASTM B117, 4872 hours	Rating 10 per ASTM D610 for Rusting (field); Rating 10 per ASTM D714 for Blistering (field)
Slip Coefficient* (zinc only)	AISC Specification for Structural Joints Using ASTM A325 or ASTM A490 Bolts	Class A, 0.38

*Consult your Sherwin-Williams Representative regarding this product's Slip Certification document



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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct.	
		Mils	(Microns)
Steel, catalyzed epoxy topcoat:			
1 ct.	Zinc Clad 200	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	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	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	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	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.

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.

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.

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

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 7	3
Brush-Off Blast	Sa 1	Sa 1	SP 6	4
Hand Tool Cleaning	C St 2	C St 2	SP 3	-
Pitted & Rusty	C St 2	C St 2	SP 3	-
Rusty	C St 3	C St 3	SP 3	-
Pitted & Rusty	D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature: 35°F (1.7°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:

4.5 Gallon (17.0L) Kit:

Part A:	2.5 gallons (9.45L)
Part B:	1 gallon (3.78L)
Part F:	60 lbs (27 Kg) zinc dust

1.65 Gallon (6.24L) Kit:

Part A:	0.92 gallons (3.48L)
Part B:	0.34 gallons (1.29L)
Part F (B69D11-47):	22 lbs (10 Kg) zinc dust

Weight: 19.92 ± 0.2 lb/gal ; 2.4 Kg/L, mixed

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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ZINC DUST

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APPLICATION BULLETIN

6.12

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.

Surface Preparation Standards					
	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal		Sa 3	Sa 3	SP 5	1
Near White Metal		Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast		Sa 2	Sa 2	SP 6	3
Brush-Off Blast		Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	CC St 2	CC St 2	SP 2	-
	Pitted & Rusted	DC St 2	DC St 2	SP 2	-
Power Tool Cleaning	Rusted	OC St 3	OC St 3	SP 3	-
	Pitted & Rusted	DC St 3	DC St 3	SP 3	-

APPLICATION CONDITIONS

Temperature: 35°F (1.7°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

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

(use Teflon packings and continuous agitation)

Pressure.....2000 - 2300 psi
Hose.....3/8" ID
Tip0.019"
FilterNone
Reduction.....As needed up to 5% by volume

Conventional Spray

(continuous agitation required)

GunBinks 95
Fluid Nozzle68
Air Nozzle.....68P
Atomization Pressure.....50 psi
Fluid Pressure.....10 - 20 psi
Reduction.....As needed up to 5% by volume

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)

Brush.....Natural bristle
Reduction.....Not recommended

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



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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Zinc Clad 200 comes in 3 premeasured containers, which when mixed provides 4.5 gallons (17.0L) 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 2.5 gallons (9.45L) of Part A with 1 gallon of Part B, then add Part F (60 pounds 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.

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

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:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	5.5 (138)	9.0 (225)
Dry mils (microns)	3.0 (75)	5.0 (125)
~Coverage sq ft/gal (m ² /L)	170 (4.16)	288 (7.05)
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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):

	@ 35°F/1.7°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	30 minutes	20 minutes	10 minutes
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To recoat:			
minimum:	12 hours	2 hours	40 minutes
maximum:	12 months	12 months	12 months
To cure:	10 days	7 days	7 days
<i>If maximum recoat time is exceeded, abrade surface before recoating.</i>			
<i>Drying time is temperature, humidity, and film thickness dependent.</i>			
Pot Life:	8 hours	6 hours	4 hours
Sweat-in-Time:	1 hour	30 minutes	15 minutes

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.

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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, 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 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.

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

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

SAFETY PRECAUTIONS

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WARRANTY

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