Protective & Marine Coatings
PRODUCT DATA SHEET

ZINC CLAD® II (85)
INORGANIC ZINC RICH COATING

Revised: March 19, 2019

PRODUCT DESCRIPTION

ZINC CLAD II (85) is a solvent-based two-package, inorganic ethyl silicate, zinc-rich coating.
- 85% zinc content in dry film
- Coating self-heals to resume protection if damaged
- Provides cathodic/sacrificial

INTENDED USES

- For use over properly prepared blasted steel
- As a one-coat maintenance coating or as a permanent primer for severely corrosive environments (pH range 5-9)
- Economical replacement for galvanizing with similar performance
- Ideal for application at low temperatures or service at high temperatures and/or humidity conditions
- Where abrasion resistance and hardness is required
- Not recommended for severe acid or alkali exposure

PRODUCT DATA

Finish: Flat

Colors: Gray-Green

Volume Solids: 62% ± 2%, ASTM D2697, mixed

VOC (mixed): <500 g/L; 4.17 lb/gal

Mix Ratio: 2 components, premeasured
5 gallons (18.9L) mix

Typical Thickness:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**3.5** (88)	**6.5** (163)
Dry mils (microns)	**2.0** (50)	**4.0** (100)
~Coverage sq ft/gal (m^2/L)	**248** (6.1)	**492** (12.2)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**995** (24.3)	

Dry film thickness in excess of 6.0 mils (150 microns) per coat is not recommended.

Shelf Life: Part E: 9 months, unopened
Part F: 24 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C).

Flash Point: 55°F (13°C), PMCC, mixed

Reducer/Clean Up:
Below 80°F (27°C): Xylene
Above 80°F (27°C): Reducer #58 or High Flash Naphtha - 100

Weight: 20.9 ± 0.2 lb/gal ; 2,5 Kg/L, mixed

Average Drying Times @ 5.0 mils wet (125 microns):

	55°F (13°C)	77°F (25°C) *50% RH*	100°F (38°C)
Touch:	30 minutes	20 minutes	15 minutes
Handle:	3 hours	1-2 hours	20 minutes
Recoat:			
minimum:	48 hours	18 hours	18 hours
maximum:	n/a	n/a	n/a
Cure to service:			
atmospheric:	7 days	7 days	7 days
immersion:	14 days	14 days	14 days
Pot Life:	18 hours	8 hours	6 hours

Note: high humidity will shorten pot life

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.

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

Minimum recommended surface preparation:
Iron & Steel: Atmospheric: SSPC-SP6 / NACE 3 / ISO8501-1:2007 Sa 2, 2 mil (50 micron) profile
Immersion: SSPC-SP10 / NACE 2 / ISO8501-1:2007 Sa 2.5, 2 mil (50 micron) profile

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APPLICATION

Airless Spray
(use Teflon packings and continuous agitation)
Pressure.....1800-2000 psi (124-137 bar)
Hose.....3/8" ID (9.5 mm)
Tip.....017"-.021" (0.43-0.53 mm)
Reduction.....As needed up to 10% by volume

Conventional Spray
(continuous agitation required)
Gun.....Binks 95
Fluid Nozzle.....66
Air Nozzle.....63PB
Atomization Pressure.....30-40 psi (2-2.7 bar)
Fluid Pressure.....10-20 psi (0.7-1.4 bar)
Reduction.....As needed up to 10% 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
Brush.....For touch-up only

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

RECOMMENDED SYSTEMS

Dry Film Thickness / ct.		Mils	(Microns)
Steel, Zinc Primer/Finish, Immersion or Atmospheric			
1 Ct.	Zinc Clad II (85)	2.0-4.0	(50-100)
Steel, Epoxy Topcoat, Atmospheric			
1 Ct.	Zinc Clad II (85)	2.0-4.0	(50-100)
1 Ct.	Macropoxy 646	5.0-10.0	(125-250)
Steel, Epoxy/Urethane Topcoat, Atmospheric			
1 Ct.	Zinc Clad II (85)	2.0-4.0	(50-100)
1 Ct.	Macropoxy 646	5.0-10.0	(125-250)
1 Ct.	Acrolon 7300	2.0-4.0	(50-100)
Steel, Epoxy/Urethane Topcoat, Atmospheric			
1 Ct.	Zinc Clad II (85)	2.0-4.0	(50-100)
1 Ct.	Macropoxy 267	5.0	(250)
1 Ct.	Acrolon 7300	2.0-4.0	(50-100)
Steel, Epoxy/Polysiloxane Topcoat, Atmospheric			
1 Ct.	Zinc Clad II (85)	2.0-4.0	(50-100)
1 Ct.	Macropoxy 267	5.0	(250)
1-2 Cts.	Sher-Loxane 800	2.0-4.0	(50-100)

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

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.

APPLICATION CONDITIONS

Temperature:

Air and surface:	0°F (-17°C) minimum, 120°F (49°C) maximum
Material:	40°F (4.5°C) minimum At least 5°F (2.8°C) above dew point
Relative humidity:	40%-90% maximum

Water misting may be required at humidity below 50%

APPROVALS

- Meets AASHTO M-300 specification
- Meets Class B requirements for Slip Coefficient and Creep Resistance, .56
- This product meets specific design requirements for non-safety related nuclear plant applications in Level II, III and Balance of Plant, and DOE nuclear facilities*

* Nuclear qualifications are NRC license specific to the facility

ADDITIONAL NOTES

Mixing Instructions: Thoroughly agitate Binder Part E using low speed continuous air driven agitation. Slowly mix all of Zinc Dust Part F into all of Binder Part E until mixture is completely uniform. After mixing, pour mixture through 30-60 mesh screen. Mixed material must be used within 8 hours. Do not mix previously mixed material with new. If reducer solvent is used, add only after both components have been thoroughly mixed. Continuous agitation of mixture during application is required, otherwise zinc dust will quickly settle out.

Do not tint.

Excessive film build, poor ventilation, and cool temperatures may cause solvent entrapment and premature coating failure.

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

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

Oil base, alkyd, epoxy ester, and silicone alkyd topcoats are not recommended.

Topcoats may be applied once 50 MEK double rubs are achieved. No zinc or only slight traces should be visible. Coin hardness test can also be used.

HEALTH AND SAFETY

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 Sheet.