Protective & Marine Coatings

EPOLON™ II

RUST INHIBITIVE EPOXY PRIMER

PART A	B67W400	OFF WHITE
PART A	B67A400	GRAY
PART B	B67V400	HARDENER

Revised 9/09

PRODUCT INFORMATION

4.63

PRODUCT DESCRIPTION

EPOLON II RUST INHIBITIVE EPOXY PRIMER is a high performance, exterior/interior, low VOC, lead and chromate free, high solids, two component, rust inhibitive, catalyzed polyamide epoxy steel primer. Specifically engineered for corrosion protection and chemical and weather resistant properties. Formulated for excellent flow and uniform finish when applied by brush, roller or spray where one coat, high build application is desired.

- Corrosion resistant
- One year recoatability
- Chemical and abrasion resistant
- Outstanding application properties
- Long pot life
- Long term durability

PRODUCT CHARACTERISTICS

Finish:	Low Sheen	
Color:	Off White, Gray	
Volume Solids:	67% ± 2%, ASTM D2697, mixed	
Weight Solids:	81% ± 2%, mixed	
VOC (EPA Method 24): mixed	Unreduced:	<300 g/L; 2.50 lb/gal
	Reduced 6%:	<324 g/L; 2.70 lb/gal
Mix Ratio:	1:1 by volume	

Recommended Spreading Rate per coat:

	Minimum		Maximum	
Wet mils (microns)	**3.0**	75	**6.0**	150
Dry mils (microns)	**2.0**	50	**4.0**	100
~Coverage sq ft/gal (m^2/L)	**270**	6.6	**535**	13.1
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1072**	26.2		

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

Drying Schedule @ 4.0 mils wet (100 microns):

	@ 50°F/10°C	@ 77°F/25°C *50% RH*	@ 120°F/49°C
To touch:	5 hours	4 hours	30 minutes
To handle:	16 hours	8 hours	2 hours
To recoat:			
minimum:	24 hours	18 hours	8 hours
maximum:	1 year	1 year	1 year

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

Pot Life:	4 hours	4 hours	1 hour
Sweat-in-time:	30 minutes	15 minutes	10 minutes

Shelf Life:	12 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	87°F (30°C) Seta Flash, mixed
Reducer/Clean Up:	Reducer #145, R7K145

RECOMMENDED USES

For use over prepared steel surfaces:

- Refineries
- Storage tanks
- Paper mills
- Power plants
- Off shore structures
- Marine applications

Not recommended for nonferrous metal

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10

System Tested*:

1 ct. Epolon II Primer @ 3.5 mils (87.5 microns) dft
1 ct. Epolon II Multi-Mil @ 3.5 mils (87.5 microns) dft
1 ct. Poly-Lon HP @ 2.0 mils (50 microns) dft

*unless otherwise noted below

Test Name	Test Method	Results
Adhesion	ASTM D4541	715 psi
Corrosion Weathering	ASTM D5894, 1008 hours, 3 cycles	Rating 10, per ASTM D714 for blistering; Rating 10 per ASTM D1654 for corrosion
Direct Impact Resistance	ASTM D2794	32 in. lb.
Dry Heat Resistance	ASTM D2485	250°F (121°C); Intermittent 275°F (135°C)
Exterior Durability	Three years at 45° South, 2% salt solution, sprayed twice daily (Monday through Friday)	Rating 10 per ASTM D610, no disbonding, no pin point rusting, less than 1/16" rust creepage at scribe
Prohesion	ASTM G53, Annex A5, 2500 hours	Rating 10 per ASTM D610, no disbonding, no pin point rusting, less than 1/16" rust creepage at scribe
Salt Fog Resistance	ASTM B117, 2000 hours	Rating 10 per ASTM D610, no disbonding, no pin point rusting, less than 1/16" rust creepage at scribe

Epoxy coatings may darken or yellow following application and curing.

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Steel:			
1 ct.	Epolon II Epoxy Primer	2.0-4.0	(50-100)
1-2 cts.	Epolon II Multi-Mil	3.0-6.0	(75-150)
Steel:			
1 ct.	Epolon II Epoxy Primer	2.0-4.0	(50-100)
1-2 cts.	Hi-Solids Polyurethane	3.0-4.0	(75-100)
Steel:			
1 ct.	Epolon II Epoxy Primer	2.0-4.0	(50-100)
1-2 cts.	Polylon HP Polyurethane	2.0-3.0	(50-75)
Steel:			
1 ct.	Epolon II Epoxy Primer	2.0-4.0	(50-100)
1-2 cts.	Water Based Catalyzed Epoxy	2.5-4.0	(63-100)
Steel:			
1 ct.	Epolon II Epoxy Primer	2.0-4.0	(50-100)
1-2 cts.	Tile-Clad HS Epoxy	2.5-4.0	(63-100)

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

DISCLAIMER

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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, 1-2 mil (25-50 micron) profile

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	C St 2	C St 2	SP 2	-
	Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature: 50°F (10°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:

Part A and B: 1 gallon (3.78L) and 5 gallon (18.9L) containers

Weight: 12.9 ± 0.2 lb/gal ; 1.5 Kg/L, mixed

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.

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APPLICATION BULLETIN

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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.

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 (1-2 mils / 25-50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

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
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Hand Tool Cleaning	Rusted	C St 2	C St 2	SP 2	-
	Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

APPLICATION CONDITIONS

Temperature: 50°F (10°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 #145, R7K145

Airless Spray
Pressure.....2700 - 3000 psi
Hose.....1/4" - 3/8" ID
Tip.....015" - .019"
Filter.....60 mesh
Reduction.....As needed up to 6% by volume

Conventional Spray
Gun.....Graco 800N
Fluid Tip.....070" Tip
Air Supply.....20 CFM
Atomization Pressure.....50 - 60 psi
Fluid Pressure.....10 - 20 psi
Reduction.....As needed up to 6% by volume

Brush
Brush.....Nylon/Polyester or Natural Bristle
Reduction.....Not recommended

Roller
Cover.....3/8" - 1/2 " woven with solvent resistant core
Reduction.....Not recommended

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

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APPLICATION BULLETIN

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated. Re-stir before using.

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

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

Recommended Spreading Rate per coat:

	Minimum		Maximum	
Wet mils (microns)	**3.0**	75	**6.0**	150
Dry mils (microns)	**2.0**	50	**4.0**	100
~Coverage sq ft/gal (m^2/L)	**270**	6.6	**535**	13.1
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NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

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minimum:	24 hours	18 hours	8 hours
maximum:	1 year	1 year	1 year
If maximum recoat time is exceeded, abrade surface before recoating.			
Drying time is temperature, humidity, and film thickness dependent.			
Pot Life:	4 hours	4 hours	1 hour
Sweat-in-time:	30 minutes	15 minutes	10 minutes

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 #145, R7K145. Clean tools immediately after use with Reducer #145, R7K145. 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 adhesion.

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

Do not apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer #145, R7K145.

Quik-Kick Epoxy Accelerator is acceptable for use. See data page 4.99 for details.

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

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