Protective & Marine Coatings

EPOLON™ II MULTI-MIL EPOXY

PART A B62-800 **SERIES**
PART B B62V800 **HARDENER**

Revised: November 20, 2023

PRODUCT INFORMATION

4.64

PRODUCT DESCRIPTION

EPOLON II MULTI-MIL EPOXY is a high performance, interior/exterior, high build, self-priming, two component, catalyzed polyamide epoxy.

- Long term durability
- Chemical and abrasion resistant
- Long pot life
- Outstanding application properties

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Wide range of colors available
Volume Solids: may vary by color	67% ± 2%, ASTM D2697, mixed,
Weight Solids: may vary by color	81% ± 2%, ASTM D2369, mixed,
VOC (EPA Method 24):	Unreduced: <280 g/L; 2.33 lb/gal Reduced 6%: <312 g/L; 2.60 lb/gal
Mix Ratio:	1:1 by volume

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**4.5** (112)	**9.0** (225)
Dry mils (microns)	**3.0*** (75)	**6.0*** (150)
~Coverage sq ft/gal (m^2/L)	**180** (4.4)	**365** (8.9)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1072** (26.2)	

*See Performance Tips section

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:	4 hours	3 hours	1 hour
To handle:	16 hours	8 hours	3 hours
To recoat:			
minimum:	24 hours	18 hours	8 hours
maximum:	6 months	6 months	6 months
To cure:	7 days	7 days	7 days
Pot Life:	4 hours	4 hours	1 hour
Sweat-in-time:	15 minutes	none	none

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

Shelf Life:	24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	110°F (43°C), PMCC, mixed
Reducer/Clean Up:	Reducer #145, R7K145

RECOMMENDED USES

For use over prepared surfaces such as:

- Steel
- Galvanized
- Structural steel
- Tank exteriors
- Piping
- Bridges
- Concrete
- Masonry
- Masonry surfaces
- Paper mills
- Refineries
- Power plants
- Suitable for use in USDA inspected facilities
- Not intended for architectural applications.
- Conforms to AWWA D102 OCS #5

PERFORMANCE CHARACTERISTICS

Substrate*: Steel
Surface Preparation*: SSPC-SP10/NACE 2
System Tested*:
2 cts. Epolon II Multi-Mil @ 5.0 mils (125 microns) dft/ct
*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	106 mg loss
Adhesion	ASTM D4541; ASTM D3359, Method A	1200 psi (ASTM D4541); 5A, 100% Retention (ASTM D3359, Method A)
Corrosion Weathering[1]	ASTM D5894, 1008 hours, 3 cycles	Rating 10, per ASTM D714 for blistering; Rating 10 per ASTM D1654 for corrosion
Dry Heat Resistance	ASTM D2485	250°F (121°C); intermittent 275°F (135°C)
Exterior Exposure	4 years @ 45° South	No blistering, cracking, or rusting
Flame Spread Rating	ASTM E84, Tunnel Test	Class A on noncombustible surfaces
Moisture Condensation Resistance	ASTM D4585, 100°F (38°C), 1500 hours	Rating 10 per ASTM D610 for rusting; Rating 10 per ASTM D714 for blistering
Pencil Hardness	ASTM D3363	3H
Prohesion	ASTM G53, 1500 hours	Rating 10 per ASTM D610 for rusting; Rating 10 per ASTM D714 for blistering
Salt Fog Resistance	ASTM B117, 1500 hours	Rating 10 per ASTM D610 for rusting; Rating 10 per ASTM D714 for blistering

Epoxy coatings may darken or yellow following application and curing.

Footnotes:
[1] 1 ct. Epolon II Primer

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Steel:			
1 ct.	Macropoxy 4600	3.0-10.0	(75-250)
1-2 cts.	Epolon II Multi-Mil Epoxy	3.0-6.0	(75-150)
Steel:			
1 ct.	Macropoxy 646	5.0-10.0	(125-250)
1 ct.	Epolon II Multi-Mil Epoxy	3.0-6.0	(75-150)
1-2 cts.	Acrolon 218 HS Polyurethane	3.0-6.0	(75-150)
Steel:			
2 cts.	Epolon II Multi-Mil Epoxy	3.0-6.0	(75-150)
Steel:			
1 ct.	Zinc Clad II Plus	3.0-5.0	(75-125)
1-2 cts.	Epolon II Multi-Mil Epoxy	3.0-6.0	(75-150)
Steel:			
1 ct.	Dura-Plate 235	4.0-8.0	(100-200)
1-2 cts.	Epolon II Multi-Mil Epoxy	2.0-4.0	(50-100)
Galvanized:			
1-2 cts.	Epolon II Multi-Mil Epoxy	2.0-4.0	(50-100)
Masonry:			
1 ct.	Kem Cati-Coat HS	10.0-20.0	(250-500)
2 cts.	Epolon II Multi-Mil Epoxy	3.0-6.0	(75-150)

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

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-SP1
Concrete & Masonry: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3

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

Tint Part A with Blend-A-Color Toner at 200% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

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

Weight: 11.9 ± 0.2 lb/gal ; 1.4 Kg/L mixed, may vary with color

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

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.

DISCLAIMER

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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 (2 mils / 50 microns). Prime any bare steel the same day as it is cleaned.

Galvanized Steel
Allow to weather a minimum of six months prior to coating. Remove all oil and grease from surface by Solvent Cleaning 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.

Concrete and Masonry
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910.

Follow the standard methods listed below when applicable:
ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
ICRI No. 310.2R Concrete Surface Preparation.

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
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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.....3/8" ID
Tip .....017" - .021"
Filter .....60 mesh
Reduction.....As needed up to 6% by volume

Conventional Spray
Gun .....Binks 95
Fluid Nozzle 68
Air Nozzle.....68PB
Atomization Pressure.....50 psi
Fluid Pressure.....20 psi
Reduction.....As needed up to 6% by volume

Brush
Brush.....Nylon/Polyester or Natural Bristle
Reduction.....As needed up to 6% by volume

Roller
Cover .....3/8" - 1/2" woven with solvent resistant core
Reduction.....As needed up to 6% by volume

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.

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)	**4.5** (112)	**9.0** (225)
Dry mils (microns)	**3.0*** (75)	**6.0*** (150)
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*See Performance Tips section

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:	4 hours	3 hours	1 hour
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To recoat:			
minimum:	24 hours	18 hours	8 hours
maximum:	6 months	6 months	6 months
To cure:	7 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:	4 hours	4 hours	1 hour
Sweat-in-time:	15 minutes	none	none

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.

Insufficient ventilation, incomplete mixing, miscatalyzation, and external heaters may cause premature yellowing.

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.

Not intended for architectural applications.

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

When coating over aluminum and galvanizing, recommended dft is 2-4 mils (50-100 microns).

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

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