Protective & Marine Coatings

WATER BASED CATALYZED EPOXY

PART A	B70	SERIES
PART B	B60V15	GLOSS HARDENER
PART B	B60V25	SEMI-GLOSS HARDENER

Revised January 16, 2015

PRODUCT INFORMATION

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PRODUCT DESCRIPTION

WATER BASED CATALYZED EPOXY is a two-component water based, catalyzed, epoxy resin coating formulated for high performance use in industrial and commercial environments.

- Meets performance requirements of ASTM D3730
- Corrosion and chemical resistant
- Impact and abrasion resistant
- Flash rust resistant
- Low odor/nonflammable
- Low VOC
- Outstanding application properties

PRODUCT CHARACTERISTICS

Finish:	Gloss or Semi-Gloss finish
Color:	Wide range of colors available
Volume Solids:	39% ± 2%, mixed, may vary by color
Weight Solids:	47% ± 2%, mixed, may vary by color
(VOC):	
Deepbase:	<200g/L; 1.67 lb/gal, mixed
Extra White:	<150g/L; 1.25 lb/gal, mixed
Mix Ratio:	2 components, premeasured 4:1

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**6.5** (162)	**8.0** (200)
Dry mils (microns)	**2.5** (63)	**3.0** (75)
~Coverage sq ft/gal (m^2/L)	**200** (4.9)	**250** (6.1)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**624** (15.3)	

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

Drying Schedule @ 8.0 mils wet (200 microns):

	@ 55°F/13°C	@ 77°F/25°C *50% RH*	@ 120°F/49°C
To touch:	2 hours	1 hours	20 minutes
Tack free:	4 hours	2 hours	30 minutes
Minimum recoat:	28 hours	18-24 hours	4 hours
Maximum recoat*:	30 days	30 days	30 days
To cure:	20 days	14 days	7 days

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

Drying time is temperature, humidity, and film thickness dependent.

Pot Life:	48 hours	36 hours	16 hours
Sweat-in-time:	60 minutes	30 minutes	30 minutes

Shelf Life:	Part A: 36 months, unopened Part B: 24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	201°F (93°C), PMCC, mixed
Reducer/Clean Up:	Water

RECOMMENDED USES

For use over prepared substrates such as steel, aluminum, and masonry in industrial environments.

- Hospitals
- Pharmaceutical houses
- Institutional kitchens
- Schools
- Exterior storage tanks
- Manufacturing equipment

- Tile-like wall coating
- Interior institutional/commercial high maintenance areas
- Upgrade surfaces painted with conventional coatings to a high performance protection system without lifting and bleeding
- Low odor/no shutdown sanitary coating system
- Suitable for use in USDA inspected facilities
- Acceptable for use in high performance architectural applications.

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP6/NACE 3

System Tested*:

1 ct. Water Based Tile Clad Primer @ 3.0 mils (75 microns) dft

1 ct. Water Based Epoxy @ 3.0 mils (75 microns) dft

*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	126 mg loss
Adhesion	ASTM D4541	350 psi
Direct Impact Resistance	ASTM D2794	15 in. lb.
Dry Heat Resistance	ASTM D2485	250°F (121°C)
Exterior Durability	1 year at 45° South	Excellent, chalks
Flexibility	ASTM D522, 180° bend, 1/4" mandrel	Passes
Moisture Condensation Resistance	ASTM D4585, 100°F (38°C), 3000 hours	Excellent
Pencil Hardness	ASTM D3363	H
Salt Fog Resistance	ASTM B117, 750 hours	Excellent
Scrub Resistance	ASTM D2486	4,800 cycles

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Steel, acrylic primer:			
1 ct.	Pro Industrial Pro-Cryl Primer	2.0-4.0	(50-100)
1-2 cts.	Water Based Catalyzed Epoxy	2.5-3.0	(63-75)
Steel, epoxy primer:			
1 ct.	Water Based Tile Clad Primer	2.0-4.0	(50-100)
2 cts.	Water Based Catalyzed Epoxy	2.5-3.0	(63-75)
Steel, alkyd primer:			
1 ct.	Kem Bond HS	2.5-5.0	(63-125)
2 cts.	Water Based Catalyzed Epoxy	2.5-3.0	(63-75)
Aluminum/Galvanized Metal:			
2 cts.	Water Based Catalyzed Epoxy	2.5-3.0	(63-75)
Concrete:			
1 ct.	Heavy Duty Block Filler	10.0-18.0	(250-450)
	or		
1 ct.	Kem Cati-Coat Epoxy Filler/Sealer	10.0-20.0	(250-500)
2 cts.	Water Based Catalyzed Epoxy	2.5-3.0	(63-75)
Masonry/Smooth:			
2 cts.	Water Based Catalyzed Epoxy	2.5-3.0	(63-75)
NOTE:Weathered, soft or porous masonry must be treated with Loxon Conditioner			
Wood, exterior:			
1 ct.	Exterior Oil-based Wood Primer	1.5-2.0	(40-50)
2 cts.	Water Based Catalyzed Epoxy	2.5-3.0	(63-75)
Wood, interior:			
1 ct.	Premium Wall and Wood Primer	1.5-2.0	(40-50)
2 cts.	Water Based Catalyzed Epoxy	2.5-3.0	(63-75)
Wallboard:			
1 ct.	ProMar 200 Interior Latex Primer	1.0-1.4	(25-35)
2 cts.	Water Based Catalyzed Epoxy	2.5-3.0	(63-75)

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

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.

Do not use hydrocarbon solvents for cleaning.

Minimum recommended surface preparation:

*	Iron & Steel:	SSPC-SP3
	Aluminum:	SSPC-SP1
	Galvanizing:	SSPC-SP1
	Concrete & Masonry:	SSPC-SP13/NACE 6, or ICRI No. 310.2RR, CSP 1-3
*	Wood, interior/exterior:	Clean, smooth, dust free

* Requires Primer

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 or EnviroToner at 100% tint strength, using the respective tinting formula pages. Better performance will be achieved with EnviroToners. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

APPLICATION CONDITIONS

Temperature:	55°F (13°C) minimum, 100°F (38°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	4 gallon (15.1L) kit or 1 gallon (3.78L) container
Part B	1 gallon (3.78L) or 1 quart (0.94L)
Weight:	10.0 ± 0.2 lb/gal ; 1.2 Kg/L mixed, may vary by color

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.

Do not use hydrocarbon solvents for cleaning.

Iron & Steel (atmospheric service)
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Power Tool Cleaning per SSPC-SP 3. For better performance, use Commercial Blast Cleaning per SSPC-SP 6/ NACE 3. 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. Primer required.

Aluminum
Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1.

Galvanized Steel
Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1. 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 ArmorSeal Crack Filler. Weathered masonry and soft or porous cement board must be brush blasted or power tool cleaned to remove loosely adhering contamination and to get to a hard, firm surface. Laitance must be removed.

Wood
Surface must be clean, dry, and sound. Remove any oils and dirt form the surface using a degreasing solvent or strong detergent. Sand to remove any loose or deteriorated surface wood and to obtain a proper surface profile. Primer recommended.

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	-

APPLICATION CONDITIONS

Temperature:	55°F (13°C) minimum, 100°F (38°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 ..... Water

Airless Spray
- Pressure..... 2000 psi
- Hose..... 1/4" ID
- Tip ..... .015"
- Filter..... 100 mesh
- Reduction..... As needed up to 12.5% by volume

Brush
- Brush..... Nylon/Polyester
- Reduction..... Not recommended

Roller
- Cover ..... 3/8" 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 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 four parts 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)	**6.5** (162)	**8.0** (200)
Dry mils (microns)	**2.5** (63)	**3.0** (75)
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NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 8.0 mils wet (200 microns):

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Maximum recoat*:	30 days	30 days	30 days
To cure:	20 days	14 days	7 days
Pot Life:	48 hours	36 hours	16 hours
Sweat-in-time:	60 minutes	30 minutes	30 minutes

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

Drying time is temperature, humidity, and film thickness dependent.

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 soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with Mineral Spirits, R1K4, to prevent rusting of the equipment. 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.

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 soap and water.

Do not use hydrocarbon solvents for cleaning.

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

SAFETY PRECAUTIONS

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