



**Protective
&
Marine
Coatings**



Certified to
NSF/ANSI 61

MACROPOXY® 5500 LOW VOC POTABLE WATER EPOXY

PART A B58-X740
PART B B58VX740
PART B B58VX745

SERIES
HARDENER
OAP HARDENER

Revised: Nov. 02, 2015

PRODUCT INFORMATION

4.86

PRODUCT DESCRIPTION

MACROPOXY 5500 is a high solids, polyamidoamine epoxy tank lining developed for potable water storage tanks. Superior spray and performance properties make **MACROPOXY 5500** ideal for field or shop applications.

- Low odor, Low VOC
- Outstanding application properties
- Recommended for potable water

PRODUCT CHARACTERISTICS

Finish: Semi-Gloss
Color: Red Primer; White, Light Blue and Beige Topcoats
Volume Solids: 74% ± 2%, mixed
Weight Solids: 82% ± 2%, mixed
VOC (EPA Method 24): <100 g/L; 0.83 lb/gal
Mix Ratio: 1:1 by volume

Primer Recommended Spreading Rate per coat:

B58RX740	Minimum	Maximum
----------	---------	---------

Wet mils (microns)	3.0 (75)	8.0 (200)
Dry mils (microns)	2.0 (50)	6.0 (150)
~Coverage sq ft/gal (m²/L)	197 (4.8)	593 (14.4)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	1187 (29.1)	

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

Primer Drying Schedule @ 6.0 mils wet (150 microns):

B58RX740	@ 50°F/10°C	@ 77°F/25°C	@ 100°F/38°C
----------	-------------	-------------	--------------

	50% RH		
To touch:	2 hours	1.5 hours	1 hour
To handle:	24 hours	16 hours	5 hours
To recoat:			
	minimum: 48 hours	16 hours	5 hours
	maximum: 3 months	3 months	3 months

Cure for:

immersion:	14 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: 3 hours 1.5 hours 1 hour
Sweat-in-time: None None None

*For **Potable Water Service**, allow a minimum of 7 days at/above 77°F (25°C) cure to service. Sterilize and rinse per AWWA C652.

Topcoats Recommended Spreading Rate per coat:

	Minimum	Maximum
--	---------	---------

Wet mils (microns)	8.0 (200)	18.0 (400)
Dry mils (microns)	6.0 (150)	14.0 (350)
~Coverage sq ft/gal (m²/L)	79 (1.9)	197 (4.8)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	1187 (29.1)	

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

PRODUCT CHARACTERISTICS (CONT'D)

Topcoats Drying Schedule @ 10.0 mils wet (250 microns):

	@ 50°F/10°C	@ 77°F/25°C	@ 100°F/38°C
	50% RH		
To touch:	2 hours	1.5 hours	1 hour
To handle:	24 hours	16 hours	5 hours
To recoat:			
	minimum: 48 hours	16 hours	5 hours
	maximum: 3 months	3 months	3 months

Cure for:

immersion:	14 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: 3 hours 1.5 hours 1 hour
Sweat-in-time: None None None

*For **Potable Water Service**, allow a minimum of 7 days at/above 77°F (25°C) cure to service. Sterilize and rinse per AWWA C652.

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

Flash Point: 75°F (24°C), Seta Flash, mixed

Reducer/Clean Up: Reducer R7K111

RECOMMENDED USES

- For potable water service, consult WWW.NSF.ORG
- Water treatment plants
- Complies with AWWA D102 for ICS #1, #2, & #5; for OCS #5 & #6
- Complies with AWWA D102 Meets the requirements of AWWA C210

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10/NACE 2

System Tested*:

1 ct. Macropoxy 5500 @ 6.0 mils (150 microns) dft

*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	120 mg loss
Adhesion	ASTM D4541	>1700 psi
Corrosion Weathering	ASTM D5894, 36 cycles, 12,000 hours	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D616 for rusting
Direct Impact Resistance	ASTM D2794	30 in. lb.
Dry Heat Resistance	ASTM D2485	250°F(121°C)
Flexibility	ASTM D522, 180° bend, 1" mandrel	Pass
Humidity Resistance	ASTM D4585, 6000 hours	No blistering, cracking or rusting
Immersion	18 months fresh and salt water	Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D616 for rusting
Pencil Hardness	ASTM D3363	4H

Epoxy coatings may darken or discolor following application and curing. Above are typical results and should not be construed as a specification.



Protective & Marine Coatings



MACROPOXY® 5500 LOW VOC POTABLE WATER EPOXY

PART A B58-X740
PART B B58VX740
PART B B58VX745

SERIES
HARDENER
OAP HARDENER

Revised: Nov. 02, 2015

PRODUCT INFORMATION

4.86

RECOMMENDED SYSTEMS

Immersion and Atmospheric: Ductile Iron Pipe:	Dry Film Thickness / ct.	
	Mils	(Microns)
Shop Applied: 1-2 cts. Macropoxy 5500LT or Field Applied: 1 ct. Macropoxy 5500 or 5500 Primer 1 ct. Macropoxy 5500	6.0-14.0	(150-350)
Steel: 2-3 cts. Macropoxy 5500 or 1 ct. Macropoxy 5500 Primer 1-3 cts. Macropoxy 5500	6.0-14.0*	(150-350)
Potable Water, Immersion, Steel: *AWWA D102: Inside Coating System No. 1 minimum AWWA 1 ct. Macropoxy 5500 1 ct. Macropoxy 5500	8.0 3.0 5.0	(200) (75) (125)
*AWWA D102: Inside Coating System No. 2 minimum AWWA 1 ct. Macropoxy 5500 1 ct. Macropoxy 5500 1 ct. Macropoxy 5500	12.0 3.0 4.0 5.0	(300) (75) (100) (125)
AWWA D012: Inside Coating System No. 3 1ct. Macropoxy 5500 Primer 1ct. SherPlate PW	2.0 mils 20.0 mils	(50) (500)
AWWA D102: Inside Coating System No. 4 1ct. Macropoxy 5500 Primer 1ct. SherFlex S	2.0 mils 30.0 mils	(50) (750)
AWWA D102: Inside Coating System No. 5 1ct. Corothane I Galvapak Zinc 1ct. Macropoxy 5500 1ct. Macropoxy 5500	2.0 mils 4.0 mils 4.0 mils	(50) (100) (100)

Acceptable for use with AWWA D102: Component of Outside Coating System No. 5 and No. 6

Other acceptable topcoats over Macropoxy 5500 Primer:
Dura-Plate UHS

*Maximum of 28.0 mils (700 microns) for entire system

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.

Minimum recommended surface preparation:

Iron & Steel	
Atmospheric:	SSPC-SP2/3
Immersion:	SSPC-SP10/NACE 2, 2-4 mil (50-100 micron) profile
Ductile Iron Pipe:	NAPF 500.03.03

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

TINTING

Do not Tint.

APPLICATION CONDITIONS

Surface / Material Temperature:	50°F (10°C minimum, 120°F (50°C) maximum with surface temp 5°F (2.8°C) above dew point
Air Temperature:	50°F (10°C) minimum, 100°F (38°C) maximum
Relative Humidity:	85% maximum. At least 5°F (2.8°C) above dew point

ORDERING INFORMATION

Packaging:	
Part A:	1 gallon (3.78L) and 5 gallon (18.9L) containers
Part B:	1 gallon (3.78L) and 5 gallon (18.9L) containers
Weight:	13.3 ± 0.2 lb/gal ; 1.6 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.



**Protective
&
Marine
Coatings**



MACROPOXY® 5500 LOW VOC POTABLE WATER EPOXY

PART A B58-X740
PART B B58VX740
PART B B58VX745

SERIES
HARDENER
OAP HARDENER

Revised: Nov. 02, 2015

APPLICATION BULLETIN

4.86

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.

Carbon Steel, Immersion Service:

The surface shall be abrasive blasted to SSPC-SP10/NACE No. 2 Near-White Blast Cleaning with a 2-4 mil (50-100 micron) profile. The anchor profile shall be sharp with no evidence of a peen surface. The finished surface shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products, and other foreign matter with no more than 5% staining. After blasting, all dust and loose residue should be removed from the surface by acceptable means. Coat steel the same day as it is prepared and prior to the formation of rust.

Iron & Steel: Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

Ductile Iron Pipe: Minimum surface preparation is Power Tool Clean per NAPF 500.03.02. Remove all oil and grease from surface by Solvent Cleaning per NAPF 500.03.01. For better performance, use Blast Cleaning per NAPF 500.03.03, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile. Prime any bare DIP before flash rusting occurs.

APPLICATION CONDITIONS

Temperature: 50°F (10°C) minimum, 120°F (50°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 UpReducer R7K111

Airless Spray

Pressure.....2700-3000 psi
Hose.....3/8" ID with 1/4" whip
Tip519-525
Filternone
Reduction.....As needed up to 10% by volume

Brush

Brush.....Nylon/Polyester or Natural Bristle
Reduction.....As needed up to 10% by volume

Roller

Cover3/8" woven with solvent resistant core
Reduction.....As needed up to 10% by volume

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

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 15	3
Brush-Off Blast	Sa 1	Sa 1	SP 20	4
Hand Tool Cleaning	CC St 2	CC St 2	SP 25	-
Rusted Pitted & Rusted	CC St 2	CC St 2	SP 25	-
Rusted	CC St 3	CC St 3	SP 30	-
Power Tool Cleaning	D St 3	D St 3	SP 3	-



Protective & Marine Coatings



Certified to NSF/ANSI 61

MACROPOXY® 5500 LOW VOC POTABLE WATER EPOXY

PART A B58-X740
PART B B58VX740
PART B B58VX745

SERIES
HARDENER
OAP HARDENER

Revised: Nov. 02, 2015

APPLICATION BULLETIN

4.86

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. If reducer solvent is used, add only after both components have been thoroughly mixed. Apply paint at the recommended film thickness and spreading rate as indicated below:

Primer Recommended Spreading Rate per coat:

B58RX740	Minimum	Maximum
Wet mils (microns)	3.0 (75)	8.0 (200)
Dry mils (microns)	2.0 (50)	6.0 (150)
~Coverage sq ft/gal (m²/L)	197 (4.8)	593 (14.4)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	1187 (29.1)	

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

Primer Drying Schedule @ 6.0 mils wet (150 microns):

B58RX740	@ 50°F/10°C	@ 77°F/25°C	@ 100°F/38°C
		50% RH	
To touch:	2 hours	1.5 hours	1 hour
To handle:	24 hours	16 hours	5 hours
To recoat:			
	minimum: 48 hours	16 hours	5 hours
	maximum: 3 months	3 months	3 months
Cure for:			
	immersion: 14 days*	7 days	7 days
	<i>If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.</i>		
Pot Life:	3 hours	1.5 hours	1 hour
Sweat-in-time:	None	None	None

*For Potable Water Service, allow a minimum of 7 days at/above 77°F (25°C) cure to service. Sterilize and rinse per AWWA C652.

Topcoats Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	8.0 (200)	18.0 (400)
Dry mils (microns)	6.0 (150)	14.0 (350)
~Coverage sq ft/gal (m²/L)	79 (1.9)	197 (4.8)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	1187 (29.1)	

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

Topcoats Drying Schedule @ 10.0 mils wet (250 microns):

	@ 50°F/10°C	@ 77°F/25°C	@ 100°F/38°C
		50% RH	
To touch:	2 hours	1.5 hours	1 hour
To handle:	24 hours	16 hours	5 hours
To recoat:			
	minimum: 48 hours	16 hours	5 hours
	maximum: 3 months	3 months	3 months
Cure for:			
	immersion: 14 days*	7 days	7 days
	<i>If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.</i>		
Pot Life:	3 hours	1.5 hours	1 hour
Sweat-in-time:	None	None	None

*For Potable Water Service, allow a minimum of 7 days cure to service. Sterilize and rinse per AWWA C652.

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 R7K111. Clean tools immediately after use with R7K111. Follow manufacturer's safety recommendations when using any solvent.

PERFORMANCE TIPS

Note: Once maximum pot life is exceeded, product may be sprayable but will not hold sag.

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, over thinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

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 R7K111.

Tinting is not recommended for immersion service.

Do not use Quik-Kick Epoxy Accelerator.

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

Excessive film build, poor ventilation, and cool temperatures may cause solvent entrapment. Avoid entrapment by following the recommended application procedures.

For Immersion Service: Electrical holiday inspection should be performed in accordance with NACE SP0188 "Discontinuity (Holiday) Testing of Protective Coatings" or ASTM D 5162-91 "Standard Practice for Discontinuity (Holiday) Testing of Non-conductive Protective Coating of Metallic Substrates."

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

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.

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.

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.