BLACK & VEATCH

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Black & Veatch Corporation

City of Geneva
Geneva Drinking Water Treatment Facility

B&V Project 137804.510
File G1.60

Joey Metzloff, Project Manager
Williams Brothers Construction Inc.
P.O. Box 1366
Peoria, IL 61654-

Shop Dwg No. 080B - Protective Coatings
Spec or Drawing No. 09940

Date In 12-Feb-07
Date Out 05-Mar-07

General Comments:

1. Contractor is to note that a full resubmittal of this shop drawing is not required; however, additional information, revisions, clarifications, and/or confirmations have been requested by the reviewing engineer. (See comments below for more information.)

Item No.	Subject	Review Status
1	Protective Coatings	No Exceptions Noted

Comments:

1. There are no comments on the following systems:
A1, A4, A8, E2, E4, E8, F1, F6, P2, P6.

City of Geneva
Geneva Drinking Water Treatment Facility

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Shop Dwg No. 080B - Protective Coatings
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2 Protective Coatings

Exceptions Noted

Comments:

Resubmit Data Sheets for the following systems, incorporating comments noted below. (Product Sheets do not need to be resubmitted.)

1. System A2-F: Include supports and miscellaneous metal for equipment handling corrosive chemicals indoor per data sheet page 8.

2. System A6-F: Add "outdoor" after corrosive chemicals per Data Sheet page 8 and add "all iron and steel components of the silo structure in exterior locations" per Data Sheet page 5.

3. System A10-F: There should be one System A10-F sheet using coal tar epoxy. Delete the first two sheets and add these surface descriptions to the A10-F coal tar epoxy coating data sheet.

4. System C2: Revise surface description to read "Where indicated on the Drawings (including Chem Feed Room and CIP Area -- coordinate with Room Finish Schedule on Sheet A34), walls adjacent to corrosive chemical storage and feed equipment." See pages 10 and 16 of Section 09940, floors are to receive a different product.

5. System C2: Submit a second System C2 data sheet and include a surface description which reads "Where indicated on the Drawings (including Chem Feed Room and CIP Area -- coordinate with Room Finish Schedule on Sheet A34 and Section 09880), floors and curbed areas adjacent to corrosive chemical storage and feed equipment." See pages 10 and 16 of Section 09940, floors are to receive a different product.

6. System E5: This system is for submerged items; resubmit Figure 1 Data Sheet.

7. Systems F7 and G7: Split first coat (10 mils DFT) into two 5 mil coats. Total system thickness is acceptable; however, we would prefer to have the epoxy enamel applied in two coats to ensure coverage thicknesses.

8. System H12: Per specifications, the DFT is listed as 1 mil per coat, for a total DFT of 2 mils. Sherwin Williams product data sheets indicate a max DFT of .5 mils per coat. Confirm 2 mil DFT as submitted is acceptable.

City of Geneva
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Spec or Drawing No. 09940

Date In 12-Feb-07
Date Out 05-Mar-07

Engineer's review of drawings and data submitted by Contractor covers only general conformity to the Drawings and Specifications, external connections, and dimensions which affect the layout. Engineer's review does not indicate a thorough review of all dimensions, quantities, and details of the material, equipment, devices, or item shown. Engineer's review shall not relieve Contractor of Contractor's responsibility for errors, omissions, or deviations in the drawings and data, nor of the Contractor's sole responsibility for compliance with the Contract Documents.

Very truly yours,

Black & Veatch Corporation

FOR

Barney G. Fullington, P.E.

cc: Mr. Mike Martens - 1 copy
Mr. Carl Goforth - 1 copy
File - 2 copies

CITY OF GENEVA
GENEVA DRINKING WATER TREATMENT FACILITY
BLACK & VEATCH PROJECT NO. 137804

WILLIAMS BROTHERS CONSTRUCTION, INC.

PEORIA, IL 61654

WB SUBMITTAL NO. / REVISION: 80B

SPECIFICATION REFERENCE: 09940

DRAWING REFERENCE:

TYPE OF SUBMITTAL:

- [X] SHOP DRAWING
- [ ] O&M MANUAL
- [ ] ELECTRONIC O&M MANUAL

CHECKED / REVIEWED BY: **Joey Metzloff** DATE: 2/9/07

BUILDING / STRUCTURE: All

EQUIPMENT / MATERIAL: Painting

VARIANCES / DEVIATIONS:

NOTES:

PROJECT SCHEDULE AND SUBMITTALS FOR

GENEVA WATER TREATMENT PLANT

PECK ROAD AND KESLINGER ROAD

SIMON/WATT LLC
2104 PRODUCTION DRIVE
INDIANAPOLIS, IN 46241
317.481.1380

SEE SHOP DRAWING FOR INCORPORATION INTO CONTRACT DOCUMENTS

PROJECT SCHEDULE AND SUBMITTALS FOR

GENEVA WATER TREATMENT PLANT

PECK ROAD AND KESLINGER ROAD

NO EXCEPTIONS NOTED
EXCEPTIONS NOTED
RETURNED FOR CORRECTION
RECORD COPY

MAR 09 2007

REVIEW DOES NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS, OMISSIONS, OR DEVIATIONS FROM CONTRACT REQUIREMENTS
BLACK & VEATCH

APPROVED AS NOTED SUBJECT TO COMPLIANCE WITH THE CONTRACT DOCUMENTS AND ARCHITECTS APPROVAL FOR DESIGN AND GENERAL ARRANGEMENT

FEB 09 2007

WILLIAMS BROTHERS CONSTRUCTION, INC.
GENERAL CONTRACTOR
BY

SIMON/WATT LLC
2104 PRODUCTION DRIVE
INDIANAPOLIS, IN 46241
317.481.1380

Prefix (A)Iron and Steel

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A1 - F
Exterior surfaces of carbon steel, chemical tanks, metal curbs for skylights and power roof ventilators	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat		
Finish coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Total system	10.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)

Above system does not require 2 coats to achieve appropriate mil thickness.

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams
Painting Applicator: Simon Watt

Initials
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City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A2- F
Iron and steel components of the silo structures exposed to view in interior locations, including shell, support members, access ladder and safety cage, etc. Cast iron, carbon steel and stainless steel piping inside buildings, including valves, fittings, flanges, bolts, supports and previously primed galvanized surfaces.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Total system	20.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt	Initials Initials RM

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A4- F
Cast iron and steel piping in manholes, wet wells, and similar locations, including valves, fittings, flanges, bolts, supports and accessories.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Total system	30.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt	Initials CA Initials KM

Black & Veatch	Coating System Data Sheet	Fig 2-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A6- F
Non-galvanized structural and miscellaneous steel exposed to view or to the elements in exterior locations. Cast iron and steel piping above grade exposed to elements and to outdoor view, including valves, fittings, flanges, bolts, supports, and previously primed galvanized surfaces. Also, supports and misc. metal for equipment handling corrosive chemicals.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	6.0 mils	Sherwin Williams Acrolon 218HS (B65 series)
Total system	16.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)
Touch up will be Macropoxy 646 10.0 mils along with top coating with 6.0 mils of Acrolon 218HS.

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams
Painting Applicator: Simon Watt

Initials
Initials

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A8 - F
Steel yard lighting poles exposed to view or the elements.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	6.0 mils	Sherwin Williams Acrolon 218HS (B65 series)
Total system	16.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt	Initials Initials KM

Black & Veatch	Coating System Data Sheet	Fig 2-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A10- F
Cast iron and steel piping in manholes, wet wells, and similar locations, including valves, fittings, flanges, bolts, supports and accessories.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Total system	30.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)
For only non submerged items listed on A10 that are factory primed.

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams
Painting Applicator: Simon Watt

Initials
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City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A10- F
Miscellaneous castings including manhole covers, steps and rings that are primed.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Total system	20.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)
E2 is same system.

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams
Painting Applicator: Simon Watt

Initials
Initials

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A10- F
All metal harness anchorage for buried piping	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	25.0 mils	Sherwin Williams HI mil Sher Tar Epoxy
Intermediate coat	25.0 mils	Sherwin Williams HI mil Sher Tar Epoxy
Finish coat	25.0 mils	Sherwin Williams HI mil Sher Tar Epoxy
Total system	50.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams Initials
Painting Applicator: Simon Watt Initials

Prefix (C) Concrete and Concrete Block

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System C2
Where indicated on drawings or below walls, floors, and curbed areas adjacent to corrosive chemical storage and feed equipment.	

Surface Preparation Description
- Solvent SSPC-SP1 - Ferrous Metal Non immersion SSPC-SP6 - Ferrous Metal Immersion - SSPC-SP10 - SSPC-SP5 X - Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Third Coat		
Total system	20.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt		Initials Initials
Black & Veatch	Coating System Data Sheet	Fig 1-09940

Prefix (E) Equipment
Submerged-Nonsumerged

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System E2- F
Miscellaneous castings including manhole covers, steps and rings that are primed.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Total system	20.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)
E2 is same system.

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams Initials
Painting Applicator: Simon Watt Initials

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System E2- F
Exterior surfaces of pressure filters and steel chemical storage tanks. Also, surfaces of cranes and hoist exposed to view indoors.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Total system	20.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt	Initials CK Initials RM

Black & Veatch	Coating System Data Sheet	Fig 2-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System E4- F
Rapid mix equipment, all iron and steel surfaces except stainless steel, motors and speed reducers.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Total system	30.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt	Initials Initials

Black & Veatch	Coating System Data Sheet	Fig 2-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System E5- F
All metal surfaces unless otherwise specified, which will be submerged or buried, all or in part, including valves, but excluding piping laid in the ground.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 NSF (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 NSF (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 NSF (B58 series)
Finish coat	10.0 mils	Sherwin Williams Macropoxy 646 NSF (B58 series)
Total system	30.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)
Any finished water areas should have Macropoxy 646NSF. (not to be tinted)

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams
Painting Applicator: Simon Watt

Initials
Initials

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System E8- F
Heating and air conditioning units, convector covers, electrical equipment cabinets, and similar items and equipment unless factory finished. Also, pumps, motors, speed reducers and other machines and equipment exposed to view.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	6.0 mils	Sherwin Williams Acrolon 218HS (B65 series)
Total system	16.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)
Touch up consists on Macropoxy 10.0 mils and Acrolon 218HS 6.0 mils

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams Initials
Painting Applicator: Simon Watt Initials

Prefix (F) Nonferrous Metal

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System F1
Copper pipe and tubing, including fittings and valves exposed to view indoors.	

Surface Preparation Description
X - Solvent SSPC-SP1
- Ferrous Metal Non immersion SSPC-SP6
- Ferrous Metal Immersion
- SSPC-SP10
- SSPC-SP5
- Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat		
Third Coat		
Total system	10.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt		Initials Initials
Black & Veatch	Coating System Data Sheet	Fig 1-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System F6
Copper pipe and tubing, including fittings and valves exposed to view in exterior locations.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Ferrous Metal Non immersion SSPC-SP6 - Ferrous Metal Immersion - SSPC-SP10 - SSPC-SP5 - Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat	6.0 mils	Sherwin Williams Acrolon 218HS (B65 series)
Third Coat		
Total system	16.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt	Initials Initials

Black & Veatch	Coating System Data Sheet	Fig 1-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System F7
Aluminum materials exposed to elements outdoors. Also, aluminum and galvanized ductwork exposed outdoors.	

Surface Preparation Description
X - Solvent SSPC-SP1
- Ferrous Metal Non immersion SSPC-SP6
- Ferrous Metal Immersion
- SSPC-SP10
- SSPC-SP5
- Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat	6.0 mils	Sherwin Williams Acrolon 218HS (B65 series)
Third Coat		
Total system	16.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt		Initials Initials
Black & Veatch	Coating System Data Sheet	Fig 1-09940

Prefix (G) Galvanized

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System G7
Aluminum and galvanized ductwork exposed outdoors.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Ferrous Metal Non immersion SSPC-SP6 - Ferrous Metal Immersion - SSPC-SP10 - SSPC-SP5 - Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat	6.0 mils	Sherwin Williams Acrolon 218HS (B65 series)
Third Coat		
Total system	16.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)

Project: City of Geneva, WTP	
Coatings Manufacturer: Sherwin Williams	Initials
Painting Applicator: Simon Watt	Initials RM

Black & Veatch	Coating System Data Sheet	Fig 1-09940

Prefix (H) High Temperature

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System H12
Engine exhaust piping. Also, Blower and compressor discharge piping and other surfaces which will be hot during operation.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Ferrous Metal Non immersion SSPC-SP6 - Ferrous Metal Immersion - SSPC-SP10 - SSPC-SP5 - Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	1.0 mils	Sherwin Williams Silver Brite High Heat
Second Coat	1.0 mils	Sherwin Williams Silver Brite High Heat
Third Coat		
Total system	2.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)
Not to exceed 2.0 mils

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams
Painting Applicator: Simon Watt

Initials CR
Initials RM

Black & Veatch	Coating System Data Sheet	Fig 1-09940

Prefix (P) PVC and FRP

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System P2
Plastic surfaces, including PVC and FRP	

Surface Preparation Description
X - Solvent SSPC-SP1 - Ferrous Metal Non immersion SSPC-SP6 - Ferrous Metal Immersion - SSPC-SP10 - SSPC-SP5 - Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Third Coat		
Total system	20.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt		Initials Initials
Black & Veatch	Coating System Data Sheet	Fig 1-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System P6
Plastic surfaces including PVC and FRP (exterior exposure)	

Surface Preparation Description
X - Solvent SSPC-SP1
- Ferrous Metal Non immersion SSPC-SP6
- Ferrous Metal Immersion
- SSPC-SP10
- SSPC-SP5
- Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat	6.0 mils	Sherwin Williams Acrolon 218HS (B65 series)
Third Coat		
Total system	16.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)

Project: City of Geneva, WTP	
Coatings Manufacturer: Sherwin Williams	Initials
Painting Applicator: Simon Watt	Initials

Industrial & Marine Coatings

MACROPOXY® 646-100 FAST CURE EPOXY

PART A B58-620 SERIES
PART B B58V620 HARDENER

PRODUCT INFORMATION

Revised 6/06

PRODUCT DESCRIPTION

MACROPOXY 646-100 FAST CURE EPOXY is a high solids, less than 100 g/L VPC, high build, fast drying, polyamide epoxy designed to protect steel and concrete in industrial exposures. Ideal for maintenance painting and fabrication shop applications. The high solids content ensures adequate protection of sharp edges, corners, and welds. This product can be applied directly to marginally prepared steel surfaces.

- Low VOC,<100 g/L
- Low odor
- Chemical resistant
- Abrasion resistant

RECOMMENDED USES

- Marine applications
- Fabrication shops
- Pulp and paper mills
- Power plants
- Offshore platforms
- Refineries
- Chemical plants
- Tank exteriors
- Water treatment plants
- Mill White and Black are acceptable for immersion use for salt water and fresh water, not acceptable for potable water
- Suitable for use in USDA inspected facilities

Conforms to AWWA D102-03 OCS #5

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Mill White and a wide range of colors available through tinting
Volume Solids: Mill White	73% ± 2%, mixed
Weight Solids: Mill White	83% ± 2%, mixed
VOC (EPA Method 24): mixed	Unreduced: <100 g/L; .83 lb/gal Reduced 10%: <100 g/L; .83 lb/gal
Mix Ratio:	1:1 by volume

Recommended Spreading Rate per coat:

Wet mils:	7.0 - 13.5
Dry mils:	5.0 - 10.0*
Coverage:	116 - 232 sq ft/gal approximate

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

Drying Schedule @ 7.0 mils wet and 50% RH:

	@ 40°F	@ 77°F	@ 100°F
To touch:	4-5 hours	2 hours	1½ hours
To handle:	48 hours	8 hours	4½ hours
To recoat:			
minimum:	48 hours	8 hours	4½ hours
maximum:	3 months	3 months	3 months
Cure for			
service:	10 days	7 days	4 days
immersion:	14 days	7 days	4 days

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

Pot Life:	10 hours	4 hours	2 hours
Sweat-in-time:	30 minutes	30 minutes	15 minutes

Shelf Life:	36 months, unopened Store indoors at 40°F to 100°F.
Flash Point:	92°F, TCC, mixed
Reducer/Clean Up:	Reducer R7K111 or Oxsol 100

PERFORMANCE CHARACTERISTICS

System Tested: (unless otherwise indicated)

Substrate:	Steel
Surface Preparation:	SSPC-SP10
1 ct.	Macropoxy 646-100 Fast Cure @ 6.0 mils dft

Abrasion Resistance:
Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load
Result: 84 mg loss

Accelerated Weathering - QUV, Zinc Clad II Plus Primer:
Method: ASTM D4587, QUV-A, 12,000 hours
Results: passes

Adhesion:
Method: ASTM D4541
Result: 1,037 psi

Corrosion Weathering, Zinc Clad II Plus Primer:
Method: ASTM D5894, 36 cycles, 12,000 hours
Result: Rating 10 per ASTM D714 for blistering
Rating 9 per ASTM D610 for rusting

Direct Impact Resistance:
Method: ASTM D2794
Result: 30 in. lb.

Dry Heat Resistance:
Method: ASTM D2485
Result: 250°F

Exterior Durability:
Method: 1 year at 45° South
Result: Excellent, chalks

Flexibility:
Method: ASTM D522, 180° bend, 3/4" mandrel
Result: Passes

Immersion:
Method: 1 year fresh and salt water
Result: Passes, no rusting, blistering, or loss of adhesion

Pencil Hardness:
Method: ASTM D3363
Result: 3H

Permeability Rating:
Method: ASTM D1653
Result: 0.154 mg/cm²

Salt Fog Resistance, Zinc Clad II Plus Primer::
Method: ASTM B117, 6,500 hours
Result: Rating 10 per ASTM D610 for rusting
Rating 9 per ASTM D1654 for corrosion

Epoxy coatings may darken or discolor following application and curing.

continued on back

Industrial & Marine Coatings

MACROPOXY® 646-100 FAST CURE EPOXY

PART A B58-620 SERIES
PART B B58V620 HARDENER

PRODUCT INFORMATION

RECOMMENDED SYSTEMS

Immersion and atmospheric:

Steel:
2 cts. Macropoxy 646-100 @ 5.0 - 10.0 mils dft/ct

Concrete/Masonry, smooth:
2 cts. Macropoxy 646-100 @ 5.0 - 10.0 mils dft/ct

Concrete Block:
1 ct. Kem Cati-Coat HS Epoxy Filler/Sealer @ 10.0 - 20.0 mils dft, as needed to fill voids and provide a continuous substrate.
2 cts. Macropoxy 646-100 @ 5.0 - 10.0 mils dft/ct

Atmospheric:
***Steel:**
(Shop applied system, new construction, AWWA D102-03, can also be used at 3 mils minimum dft when used as an intermediate coat as part of a multi-coat system)
1 ct. Macropoxy 646-100 Fast Cure Epoxy @ 3.0 - 6.0 mils dft
1-2 cts. of recommended topcoat

Steel:
1 ct. Recoatable Epoxy Primer @ 4.0 - 6.0 mils dft
2 cts. Macropoxy 646-100 @ 5.0 - 10.0 mils dft/ct

***Steel:**
1 ct. Macropoxy 646-100 @ 4.0 - 6.0 mils dft
1-2 cts. Acrolon 218 Polyurethane @ 3.0 - 6.0 mils dft/ct
or Hi-Solids Polyurethane @ 3.0 - 5.0 mils dft/ct
or SherThane 2K Urethane @ 2.0 - 4.0 mils dft/ct

Steel:
2 cts. Macropoxy 646-100 @ 5.0 - 10.0 mils dft/ct
1-2 cts. Tile-Clad HS Epoxy @ 2.5 - 4.0 mils dft/ct

Steel:
1 ct. Zinc Clad II Plus @ 3.0 - 6.0 mils dft
1 ct. Macropoxy 646-100 @ 5.0 - 10.0 mils dft
1-2 cts. Acrolon 218 Polyurethane @ 3.0 - 6.0 mils dft/ct

Steel:
1 ct. Zinc Clad III HS @ 3.0 - 5.0 mils dft
or Zinc Clad IV @ 3.0 - 5.0 mils dft
1 ct. Macropoxy 646-100 @ 5.0 - 10.0 mils dft
1-2 cts. Acrolon 218 Polyurethane @ 3.0 - 6.0 mils dft/ct

Aluminum:
2 cts. Macropoxy 646-100 @ 5.0 - 10.0 mils dft/ct

Galvanizing:
2 cts. Macropoxy 646-100 @ 5.0 - 10.0 mils dft/ct

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 good 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, 2-3 mil profile
Aluminum:	SSPC-SP1
Galvanizing:	SSPC-SP1
Concrete & Masonry	
Atmospheric:	SSPC-SP13/NACE 6, or ICRI 03732, CSP 1-3
Immersion:	SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI 03732, CSP 1-3

TINTING

Tint Part A with 844 Colorants at 150% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

Tinting is not recommended for immersion service.

APPLICATION CONDITIONS

Temperature:	40°F minimum, 140°F maximum (air, surface, and material)
	At least 5°F above dew point
Relative humidity:	85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:	
Part A:	1 and 5 gallon containers
Part B:	1 and 5 gallon containers
Weight per gallon:	13.24 ± 0.2 lb mixed, may vary by color

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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DISCLAIMER

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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.

SHERWIN WILLIAMS

Industrial & Marine Coatings

MACROPOXY® 646-100 FAST CURE EPOXY

PART A B58-620
PART B B58V620

SERIES
HARDENER

APPLICATION BULLETIN

Revised 6/06

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.

Iron & Steel, Atmospheric Service:
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). Prime any bare steel within 8 hours or before flash rusting occurs.

Iron & Steel, Immersion Service:
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2-3 mils). Remove all weld spatter and round all sharp edges by grinding. Prime any bare steel the same day as it is cleaned.

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 (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, Atmospheric Service:
For surface preparation, refer to NACE 6/SSPC-SP13, or ICRI 03732, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F. 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 a cement patching compound. 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 by etching with a 10% muriatic acid solution and thoroughly neutralized with water.

Concrete and Masonry, Immersion Service:
For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 4.3.2, or ICRI 03732, CSP 1-3.

Previously Painted Surfaces
If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

APPLICATION CONDITIONS

Temperature:	40°F minimum, 140°F maximum (air, surface, and material) At least 5°F 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 R7K111 or Oxsol 100

Airless Spray

Pump	30:1
Pressure	2800 - 3000 psi
Hose	1/4" ID
Tip	.017" - .023"
Filter	60 mesh
Reduction	As needed up to 10% by volume

Conventional Spray

Gun	DeVilbiss MBC-510
Fluid Tip	E
Air Nozzle	704
Atomization Pressure	60-65 psi
Fluid Pressure	10-20 psi
Reduction	As needed up to 10% by volume

Requires oil and moisture separators

Brush

Brush	Nylon/Polyester or Natural Bristle
Reduction	Not recommended

Roller

Cover	3/8" woven with phenolic core
Reduction	Not recommended

If specific application equipment is listed above, equivalent equipment may be substituted.

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SHERWIN WILLIAMS.

Industrial & Marine Coatings

MACROPOXY® 646-100 FAST CURE EPOXY

PART A B58-620 SERIES
PART B B58V620 HARDENER

APPLICATION BULLETIN

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with 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 prior to application. Re-stir before using.

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

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

Recommended Spreading Rate per coat:

Wet mils:	7.0 - 13.5
Dry mils:	5.0 - 10.0*
Coverage:	116 - 232 sq ft/gal approximate

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

* See Recommended Systems

Drying Schedule @ 7.0 mils wet and 50% RH:

	@ 40°F	@ 77°F	@ 100°F
To touch:	4-5 hours	2 hours	1½ hours
To handle:	48 hours	8 hours	4½ hours
To recoat:			
minimum:	48 hours	8 hours	4½ hours
maximum:	3 months	3 months	3 months
Cure for			
service:	10 days	7 days	4 days
immersion:	14 days	7 days	4 days

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

Pot Life:	10 hours	4 hours	2 hours
Sweat-in-time:	30 minutes	30 minutes	15 minutes

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

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 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 or Oxsol 100.

Tinting is not recommended for immersion service.

Use only Mil White for immersion service.

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.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer R7K111 or Oxsol 100. Clean tools immediately after use with Reducer R7K111 or Oxsol 100. Follow manufacturer's safety recommendations when using any solvent.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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SHERWIN WILLIAMS.

Industrial & Marine Coatings

ACROLON™ 218 HS
ACRYLIC POLYURETHANE

PART A	B65-600	GLOSS SERIES
PART A	B65-650	SEMI-GLOSS SERIES
PART B	B65V600	HARDENER

Revised 6/05

PRODUCT INFORMATION

PRODUCT DESCRIPTION

ACROLON 218 HS acrylic polyurethane is a VOC compliant, polyester modified, aliphatic, acrylic polyurethane formulated specifically for in-shop applications. Also suitable for industrial applications. A fast drying, high gloss urethane that provides color and gloss retention for exterior exposure.

- Can be used directly over organic zinc rich primers (epoxy zinc primer and moisture cure urethane zinc primer)
- Color and gloss retention for exterior exposure
- Fast dry

RECOMMENDED USES

Specifically formulated for in-shop applications.
For use over prepared metal and masonry surfaces in industrial environments such as:

- Structural steel
- Rail cars and locomotives
- Conveyors
- Bridges
- Offshore platforms - exploration and production
- Suitable for use in USDA inspected facilities
- Tank exteriors
- Pipelines
- Ships

Conforms to AWWA D102-03, OCS #5&#6
Acceptable for use in high performance architectural applications.

PRODUCT CHARACTERISTICS

Finish: High Gloss or Semi-Gloss

Color: Wide range of colors available

Volume Solids: 65% ± 2%, mixed, may vary by color

Weight Solids: 78% ± 2%, mixed, may vary by color

VOC (EPA Method 24): mixed
Unreduced: <300 g/L; 2.5 lb/gal
Reduced 10%: <340 g/L; 2.8 lb/gal
Reduced 15%: <360 g/L; 3.0 lb/gal
Maximum

Mix Ratio: 6:1 by volume, 1 gallon or 5 gallon mixes premeasured components

Recommended Spreading Rate per coat:

Wet mils:	4.5 - 9.0
Dry mils:	3.0 - 6.0
Coverage:	175 - 346 sq ft/gal approximate

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

Drying Schedule @ 6.0 mils wet @ 50% RH:

	@50°F	@77°F	@120°F
To touch:	2 hours	30 minutes	20 minutes
To handle:	10 hours	6 hours	4 hours
To recoat:			
minimum:	12 hours	8 hours	6 hours
maximum:	3 months	3 months	3 months
To cure:	14 days	7 days	5 days

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

Pot Life: (reduced 5% with Reducer R7K15) 4 hours | 2 hours | 45 minutes

Sweat In Time: none | none | none
If maximum recoat time is exceeded, abrade surface before recoating.

Shelf Life:
Part A: 36 months, unopened
Part B: 12 months, unopened
Store indoors at 40°F to 100°F

Flash Point: 55°F, Seta, mixed
Reducer/Clean Up: Spray Reducer R7K15
Brush/Roll Reducer #132, R7K132

PERFORMANCE CHARACTERISTICS

System Tested: (unless otherwise indicated)
Substrate: Steel
Surface Preparation: SSPC-SP10
1 ct. Macropoxy 646 @ 6.0 mils dft
1 ct. Acrolon 218 HS Gloss @ 4.0 mils dft

Abrasion Resistance: [1]
Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load
Result: 43 mg loss

Adhesion:
Method: ASTM D4541
Result: 975 psi

Corrosion Weathering: [2]
Method: ASTM D5894, 9 cycles, 3024 hours
Result: Rating 10 per ASTM D610, for rusting
Rating 10 per ASTM D714, for blistering

Direct Impact Resistance: [1]
Method: ASTM D2794
Result: 50 in. lb.

Dry Heat Resistance: [1]
Method: ASTM D2485, Method A
Result: 200°F

Flexibility: [1]
Method: ASTM D522, 180° bend, 1/8" mandrel
Result: Passes

Humidity Resistance: [2]
Method: ASTM D4585, 100°F, 1500 hours
Result: Rating 10 per ASTM D610 for rusting
Rating 10 per ASTM D714 for blistering

Pencil Hardness:
Method: ASTM D3363
Result: 3H

Salt Fog Resistance: [2]
Method: ASTM B117, 7000 hours
Result: Rating 10 per ASTM D610 for rusting
Rating 9 per ASTM D714 for blistering

[1] Finish coat only tested
[2] Primer Zinc-Clad II Plus
Intermediate Macropoxy 646
Finish Acrolon 218 HS

Meets the requirements of SSPC Paint No. 36, Level 3.

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SHERWIN WILLIAMS

Industrial & Marine Coatings

ACROLON™ 218 HS
ACRYLIC POLYURETHANE

PART A	B65-600	GLOSS SERIES
PART A	B65-650	SEMI-GLOSS SERIES
PART B	B65V600	HARDENER

PRODUCT INFORMATION

RECOMMENDED SYSTEMS

Steel:
1 ct. Macropoxy 646 @ 5.0 - 10.0 mils dft
1-2 cts. Acrolon 218 HS Acrylic Polyurethane @ 3.0 - 6.0 mils dft/ct

Steel:
1 ct. Zinc Clad II Plus @ 3.0 - 5.0 mils dft
1 ct. Macropoxy 646 @ 5.0 - 10.0 mils dft
1-2 cts. Acrolon 218 HS Acrylic Polyurethane @ 3.0 - 6.0 mils dft/ct

Steel:
1 ct. Zinc Clad IV @ 3.0 - 5.0 mils dft
1-2 cts. Acrolon 218 HS Acrylic Polyurethane @ 3.0 - 6.0 mils dft/ct

Steel:
1 ct. Corothane I - GalvaPac Zinc Primer @ 3.0 - 4.0 mils dft
1-2 cts. Acrolon 218 HS Acrylic Polyurethane @ 3.0 - 6.0 mils dft/ct

Steel:
1 ct. Epoxy Mastic Aluminum II @ 6.0 mils dft
1-2 cts. Acrolon 218 HS Acrylic Polyurethane @ 3.0 - 6.0 mils dft/ct

Steel:
1 ct. Recoatable Epoxy Primer @ 4.0 - 6.0 mils dft
1-2 cts. Acrolon 218 HS Acrylic Polyurethane @ 3.0 - 6.0 mils dft/ct

Concrete/Masonry:
1 ct. Kem Cati-Coat HS Epoxy Filler/Sealer @ 10.0 - 20.0 mils dft
1-2 cts. Acrolon 218 HS Acrylic Polyurethane @ 3.0 - 6.0 mils dft/ct

Aluminum/Galvanizing:
1 ct. DTM Wash Primer @ 0.7 - 1.3 mils dft
1-2 cts. Acrolon 218 HS Acrylic Polyurethane @ 3.0 - 6.0 mils dft/ct

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, 1-2 mils pro file
* Galvanizing: SSPC-SP1
* Concrete & Masonry: SSPC-SP13/NACE 6, or ICRI 03732, CSP 1-3

* Primer required

TINTING

Tint Part A with 844 Colorants.
- Extra white tints at 100% tint strength
- Ultradeep base tints at 150% tint strength

Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

APPLICATION CONDITIONS

Temperature:	40°F minimum, 120°F maximum (air, surface, and material) At least 5°F above dew point
Relative humidity:	85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:	1 gallon mix:	5 gallon mix:
Part A:	.86 gal	4.29 gal
Part B:	.14 gal	0.71 gal
(premeasured components)		
Weight per gallon:	11.2 ± 0.2 lb mixed, may vary with color	

SAFETY PRECAUTIONS

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SHERWIN WILLIAMS

Industrial & Marine Coatings

ACROLON™ 218 HS
ACRYLIC POLYURETHANE

PART A	B65-600	GLOSS SERIES
PART A	B65-650	SEMI-GLOSS SERIES
PART B	B65V600	HARDENER

APPLICATION BULLETIN

Revised 6/05

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.

Iron & Steel
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). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

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

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 or before flash rusting occurs.

Poured Concrete

New
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI 03732, CSP 1-3. Surfaces must be clean, dry, sound and offer sufficient profile to achieve adequate adhesion. Minimum substrate cure is 28 days at 75°F. Remove all form release agents, curing compounds, salts, efflorescence, laitance, and other foreign matter by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. Refer to ASTM D4260. Rinse thoroughly to achieve a final pH between 8.0 and 10.0. Allow to dry thoroughly prior to coating.

Old
Surface preparation is done in much the same manner as new concrete, however, if the concrete is contaminated with oils, grease, chemicals, etc., they must be removed by cleaning with a strong detergent. Refer to ASTM D4258. Form release agents, hardeners, etc. must be removed by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. If surface deterioration presents an unacceptably rough surface, Kem Cati-Coat Epoxy HS Filler/Sealer is recommended to patch and resurface damaged concrete. Fill all cracks, voids and bugholes with Steel Seam VSE

Always follow the standard methods listed below:
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 03732 Concrete Surface Preparation

APPLICATION CONDITIONS

Temperature:	40°F minimum, 120°F maximum (air, surface, and material) At least 5°F 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 compatible with the existing environmental and application conditions.

Reducer/Clean Up:
Spray ..... Reducer R7K15
Brush/Roll ..... Reducer #132, R7K132
If reducer is used, reduce at time of catalyzation.

Airless Spray
Pressure ..... 2500 - 2800 psi
Hose ..... 3/8" ID
Tip ..... .013" - .017"
Filter ..... 60 mesh
Reduction ..... As needed up to 15% by volume

Conventional Spray
Gun ..... Binks 95
Cap 63P
Atomization Pressure .. 50 - 70 psi
Fluid Pressure ..... 20 - 25 psi
Reduction ..... As needed up to 15% by volume

Brush
Brush ..... Natural Bristle
Reduction ..... As needed up to 15% by volume

Roller
Cover ..... 3/8" woven with phenolic core
Reduction ..... As needed up to 15% by volume

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

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SHERWIN WILLIAMS

Industrial & Marine Coatings

ACROLON™ 218 HS
ACRYLIC POLYURETHANE

PART A	B65-600	GLOSS SERIES
PART A	B65-650	SEMI-GLOSS SERIES
PART B	B65V600	HARDENER

APPLICATION BULLETIN

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with power agitation. Make certain no pigment remains on the bottom of the can. Then combine six parts by volume of Part A with one part by volume of Part B (premeasured components). Thoroughly agitate the mixture with power agitation. Re-stir before using.

If reducer is used, add only after both components have been thoroughly mixed.

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

Recommended Spreading Rate per coat:

Wet mils:	4.5 - 9.0
Dry mils:	3.0 - 6.0
Coverage:	175 - 346 sq ft/gal approximate

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

Drying Schedule @ 6.0 mils wet @ 50% RH:

	50°F	@ 77°F	@ 120°F
To touch:	2 hours	30 minutes	20 minutes
To handle:	10 hours	6 hours	4 hours
To recoat:			
minimum:	12 hours	8 hours	6 hours
maximum:	3 months	3 months	3 months
To cure:	14 days	7 days	5 days
Pot Life:	4 hours	2 hours	45 minutes
(reduced 5% with Reducer R7K15)			
Sweat in Time:	none	none	none

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

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 Reducer #15, R7K15.

Mixed coating is sensitive to water. Use water traps in all air lines. Moisture contact can reduce pot life and affect gloss and color.

E-Z Roll Urethane Defoamer is acceptable for use. See data page 5.99 for details.

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer #132, R7K132. Clean tools immediately after use with Reducer #132, R7K132. Follow manufacturer's safety recommendations when using any solvent.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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DISCLAIMER

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WARRANTY

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Industrial & Marine Coatings

HI-MIL SHER-TAR® EPOXY

PART A B69B40 BLACK
PART B B60V40 HARDENER

PRODUCT INFORMATION

Revised 6/06

PRODUCT DESCRIPTION

HI-MIL SHER-TAR EPOXY is a high build, polyamide cured, epoxy coal tar coating, which can be applied at high film thickness in one coat.

RECOMMENDED USES

For use over prepared substrates such as steel and concrete in industrial environments.

- Penstocks
- Dam gates
- Petroleum storage tanks
- Heavy duty structural coating
- Non-potable water tank and pipe coating
- Acceptable for use with cathodic protection systems
- Liner for clarifiers
- Marine applications
- Offshore drilling rigs

PRODUCT CHARACTERISTICS

Finish: Semi-Gloss

Color: Black

Volume Solids: 68% ± 2%, mixed

Weight Solids: 77% ± 2%, mixed

VOC (calculated): Unreduced: <340 g/L; 2.8 lb/gal mixed
Reduced 25%: <430 g/L; 3.59 lb/gal

Mix Ratio: 2 components, premeasured 3:1
4 gallons mixed

Recommended Spreading Rate per coat:

Wet mils:	24.0 - 35.0
Dry mils:	16.0 - 24.0
Coverage:	45 - 68 sq ft/gal approximate

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

Drying Schedule @ 29.0 mils wet @ 50% RH:

	@ 50°F	@ 77°F	@ 100°F
To touch:	10 hours	8-10 hours	2 hours
To handle:	48 hours	48 hours	6 hours
To recoat:			
minimum:	24 hours	16 hours	8 hours
maximum:	72 hours	48 hours	16 hours
To cure:	7 days	7 days	7 days
Pot Life:	6 hours	4 hours	1 hour
Sweat-in-Time:	1 hour	30 minutes	15 minutes

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

Shelf Life: 12 months, unopened
Store indoors at 40°F to 100°F.

Flash Point: 110°F PMCC, mixed

Reducer/Clean Up: Reducer #54, R7K54

PERFORMANCE CHARACTERISTICS

System Tested: (unless otherwise indicated)
Substrate: Steel
Surface Preparation: SSPC-SP6
1 ct. Hi-Mil Sher-Tar @ 20.0 mils dft

Abrasion Resistance:
Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load
Result: 101 mg loss

Adhesion:
Method: ASTM D4541
Result: 600 psi

Direct Impact Resistance:
Method: ASTM D2794
Result: >80 in. lbs.

Dry Heat Resistance:
Method: ASTM D2485
Result: 350°F

Flexibility:
Method: ASTM D522, 180° bend, 1" mandrel
Result: Passes

Moisture Condensation Resistance:
Method: ASTM D4585, 100°F, 1000 hours
Result: No failure

Pencil Hardness:
Method: ASTM D3363
Result: 4H

Salt Fog Resistance:
Method: ASTM B117, 1000 hours
Result: Excellent

Sea Water Immersion:
Method: ASTM D870 2 years
Result: No blistering, cracking, or rusting

Water Vapor Permeability:
Method: ASTM D1653
Result: 0.021 perm-in.

Wet Heat Resistance:
Method: Non-immersion
Result: 120°F

Provides performance comparable to products formulated to federal specifications: DOD-P-23236A (SH) Class 2. (Replaces MIL-P-23236) Type 1, Class 2, SSPC-Paint 16.

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Industrial & Marine Coatings

HI-MIL SHER-TAR® EPOXY

PART A B69B40 BLACK
PART B B60V40 HARDENER

PRODUCT INFORMATION

RECOMMENDED SYSTEMS

Concrete or Steel, atmospheric or immersion:
1 ct. Hi-Mil Sher-Tar Epoxy @ 16.0 - 24.0 mils dft

Concrete or Steel, atmospheric or immersion:
2 cts. Hi-Mil Sher-Tar Epoxy @ 8.0 - 12.0 mils dft/ct

Steel, zinc rich primer, atmospheric only:
1 ct. Zinc Clad II Plus @ 3.0 - 5.0 mils dft
1 ct. Hi-Mil Sher-Tar Epoxy @ 16.0 - 24.0 mils dft

Steel, atmospheric only (Optional Epoxy Primer):
1 ct. Recoatable Epoxy Primer @ 4.0 - 6.0 mils dft
1 ct. Hi-Mil Sher-Tar Epoxy @ 16.0 - 24.0 mils dft

Aluminum, atmospheric only:
1 ct. Hi-Mil Sher-Tar Epoxy @ 16.0 - 24.0 mils dft

Galvanized Metal, atmospheric only:
1 ct. Hi-Mil Sher-Tar Epoxy @ 16.0 - 24.0 mils dft

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:	
Atmospheric:	SSPC-SP6/NACE 3, 2 mil profile
Immersion:	SSPC-SP10/NACE 2, 4 mil profile
Aluminum:	Brush Blast, 2 mil profile
Galvanizing:	Brush Blast, 2 mil profile
Concrete Masonry:	
Atmospheric:	SSPC-SP 13/NACE 6, or ICRI 03732, CSP 1-3
Immersion:	SSPC-SP 13/NACE 6-4.3.1 or 4.3.2., or ICRI 03732, CSP 1-3

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature:	50°F minimum, 120°F maximum (air, surface, and material)
	At least 5°F above dew point
Relative humidity:	90% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:	4 gallons mixed
Part A:	3 gallons in a 5 gallon container
Part B:	1 gallon
Weight per gallon:	10.3 ± 0.2 lb, mixed

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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Industrial & Marine Coatings

HI-MIL SHER-TAR® EPOXY

PART A B69B40 BLACK
PART B B60V40 HARDENER

APPLICATION BULLETIN

Revised 6/06

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.

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). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Iron & Steel (immersion service)
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (4 mils). Remove all weld spatter and round all sharp edges by grinding. Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Galvanized Steel/Aluminum
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). Lightly brush blast per SSPC-SP 7 to provide a 2 mil profile.

Concrete
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI 03732, CSP 1-3. All surfaces must be cured according to the supplier's recommendations. Remove all form release and curing agents by sandblasting, shot blasting, mechanical scarification, or suitable chemical means. Fill all cracks, voids and bugholes with Steel Seam VSE. Concrete must be free of moisture as much as possible (moisture seldom drops below 15% in concrete). Test for moisture or dampness by taping an 18 inch by 18 inch plastic sheet (4 mils thick) on the bare surface, sealing all of the edges. After a minimum of 16 hours, inspect for moisture, discoloration, or condensation on the concrete or the underside of the plastic. If moisture is present, the source must be located and the cause corrected prior to painting. Brush blasting required for immersion service.

APPLICATION CONDITIONS

Temperature:	50°F minimum, 120°F maximum (air, surface, and material) At least 5°F above dew point
Relative humidity:	90% 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 #54, R7K54

Airless Spray
Pressure ..... 2500 - 3000 psi
Hose ..... 3/8" - 1/2" ID
Tip ..... .031"
Filter ..... none
Reduction ..... As needed up to 25% by volume

Conventional Spray (bottom feed tank recommended)
Gun ..... Binks 95
Fluid Nozzle 66
Air Nozzle 63PB
Atomization Pressure ... 60 psi
Fluid Pressure ..... 40 psi
Reduction ..... As needed up to 25% by volume

Brush
Brush ..... Natural Bristle
Reduction ..... Not recommended

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

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

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Industrial & Marine Coatings

HI-MIL SHER-TAR® EPOXY

PART A B69B40 BLACK
PART B B60V40 HARDENER

APPLICATION BULLETIN

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with power agitation. Make certain no pigment remains on the bottom of the can. Then combine three 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:

Wet mils:	24.0 - 35.0
Dry mils:	16.0 - 24.0
Coverage:	45 - 68 sq ft/gal approximate

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

Drying Schedule @ 29.0 mils wet @ 50% RH:

	@ 50°F	@ 77°F	@ 100°F
To touch:	10 hours	8-10 hours	2 hours
To handle:	48 hours	48 hours	6 hours
To recoat:			
minimum:	24 hours	16 hours	8 hours
maximum:	72 hours	48 hours	16 hours
To cure:	7 days	7 days	7 days
Pot Life:	6 hours	4 hours	1 hour
Sweat-in-Time:	1 hour	30 minutes	15 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.

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 Reducer #54, R7K54.

Coating must be fully cured before placing into immersion service.

Holiday Detection: For systems <20 mils, use a wet sponge-type detector such as KD Bird Dog or equivalent equipment per manufacturer's recommendation. For systems >20 mils, use high voltage holiday detectors. Test only cured coating, as solvent entrapment in fresh films may provide false readings.

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer #54, R7K54. Clean tools immediately after use with Reducer #54, R7K54. Follow manufacturer's safety recommendations when using any solvent.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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Industrial & Marine Coatings

NSF

MACROPOXY® 646 NSF
FAST CURE EPOXY

Certified to NSF/ANSI 61

PART A	B58WX610	MILL WHITE
PART A	B58LX600	LIGHT BLUE
PART B	B58VX600	HARDENER

PRODUCT INFORMATION

Revised 7/06

PRODUCT DESCRIPTION

MACROPOXY 646 NSF FAST CURE EPOXY is a high solids, high build, fast drying, polyamide epoxy certified by NSF to Standard 61 as a tank lining for potable water storage tanks. The high solids content ensures adequate protection of sharp edges, corners, and welds.

RECOMMENDED USES

- As an interior tank lining for potable storage water tanks of 1,500 gallon minimum tank size with standard cure and 100 gallon minimum tank size, 15" interior pipe - forced cure***
- Conforms to AWWA D102-03 ICS #1, #2, and #5, and OCS #5***
- Suitable for use with cathodic protection systems

***Refer to respective systems

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Mill White and Light Blue
Volume Solids:	72% ± 2%, mixed
Weight Solids:	85% ± 2%, mixed
VOC (EPA Method 24): mixed	Unreduced: <250 g/L; 2.08 lb/gal Reduced 10%: <300 g/L; 2.50 lb/gal
Mix Ratio:	1:1 by volume

Recommended Spreading Rate per coat:

	Standard	AWWA
Wet mils:	7.0 - 13.5	4.2 - 8.3
Dry mils:	5.0 - 10.0*	3.0 - 6.0*
Coverage:	116 - 232	192 - 384

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

* See Recommended Systems on reverse side

Drying Schedule @ 7.0 mils wet and 50% RH:

	@ 40°F	@ 77°F	@ 100°F
To touch:	4-5 hours	2 hours	1½ hours
To handle:	48 hours	8 hours	4½ hours
To recoat: minimum:	48 hours	8 hours	4½ hours
maximum:	3 months	3 months	3 months
Cure for immersion:	14 days	7 days	4 days

If maximum recoat time is exceeded, scarify surface before recoating.

Drying time is temperature, humidity and film thickness dependent.

For **Potable Water Service**, allow a minimum cure time of 7 days at 77°F prior to placing in service. Sterilize and rinse per AWWA C652.

Pot Life:	10 hours	4 hours	2 hours
Sweat-in-time:	30 minutes	30 minutes	15 minutes

Shelf Life:	36 months, unopened Store indoors at 40°F to 100°F
Flash Point:	60°F, TCC, mixed
Reducer/Clean Up:	Reducer, R7K15

PERFORMANCE CHARACTERISTICS

System Tested: (unless otherwise indicated)
Substrate: Steel
Surface Preparation: SSPC-SP10
1 ct. Macropoxy 646 NSF Fast Cure Epoxy @ 6.0 mils dft

Abrasion Resistance:
Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load
Result: 84 mg loss

Adhesion:
Method: ASTM D4541
Result: 1,037 psi

Corrosion Weathering, Zinc Clad II Plus Primer:
Method: ASTM D5894, 36 cycles, 12,000 hours
Result: Rating 10 per ASTM D714 for blistering
Rating 9 per ASTM D610 for rusting

Direct Impact Resistance:
Method: ASTM D2794
Result: 30 in. lb.

Dry Heat Resistance:
Method: ASTM D2485
Result: 250°F

Flexibility:
Method: ASTM D522, 180° bend, 3/4" mandrel
Result: Passes

Humidity Resistance
Method: ASTM D4585, 6000 hrs
Result: No blistering, cracking, or rusting

Immersion:
Method: 1 year fresh and salt water
Result: Passes, no rusting, blistering, or loss of adhesion

Pencil Hardness:
Method: ASTM D3363
Result: 3H

Permeability Rating:
Method: ASTM D1653
Result: 0.154 mg/cm²

Epoxy coatings may darken or discolor following application and curing.

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Industrial & Marine Coatings

NSF

Certified to NSF/ANSI 61

MACROPOXY® 646 NSF

FAST CURE EPOXY

PART A	B58WX610	MILL WHITE
PART A	B58LX600	LIGHT BLUE
PART B	B58VX600	HARDENER

PRODUCT INFORMATION

RECOMMENDED SYSTEMS

Immersion, Steel:

***AWWA D102-03: Inside Coating System No. 1**
(minimum AWWA DFT 8.0 mils)
1 ct. Macropoxy 646 NSF @ 3.0 mils dft
1 ct. Macropoxy 646 NSF @ 5.0 mils dft

***AWWA D102-03: Inside Coating System No. 2**
(minimum AWWA DFT 12.0 mils)
1 ct. Macropoxy 646 NSF @ 3.0 mils dft
1 ct. Macropoxy 646 NSF @ 4.0 mils dft
1 ct. Macropoxy 646 NSF @ 5.0 mils dft

***AWWA D102-03: Inside Coating System No. 3**
(minimum AWWA DFT 10.0 mils)
1 ct. Zinc Clad II LV or Plus @ 2.0 mils dft
1 ct. Macropoxy 646 NSF @ 3.0 mils dft
1 ct. Macropoxy 646 NSF @ 5.0 mils dft

***AWWA D102-03: Inside Coating System No. 5**
(minimum AWWA DFT 10.0 mils)
1 ct. Corothane I Galvapac NSF @ 2.0 mils dft
2 cts. Macropoxy 646 NSF @ 4.0 mils dft/ct

Steel, forced cure (100 gallon minimum tank size):
2 cts. Macropoxy 646 NSF @ 5.0 - 6.0 mils dft/ct
•12 mils maximum film thickness•Curing requirements
- •Flash 2 hours @ 75°F
- •24 hours @ 150°
- •24 hours @ 75°F

Atmospheric, Steel:

***AWWA D102-03: Outside Coating System No. 5**
(minimum DFT 6.0 mils)
1 ct. Macropoxy 646 NSF @ 2.0 mils dft
1 ct. Macropoxy 646 NSF @ 2.0 mils dft
1 ct. Acrolon 218HS @ 2.0 mils dft

***AWWA D102-03: Outside Coating System No. 6**
(minimum DFT 6.0 mils)
1 ct. Corothane I GalvaPac NSF @ 2.0 mils dft
1 ct. Macropoxy 646 NSF @ 2.0 mils dft
1 ct. Acrolon 218HS @ 2.0 mils dft

Concrete/Masonry, smooth:
2 cts.Macropoxy 646 NSF @ 3.0 - 6.0 mils dft/ct

Refer to NSF.org for maximum dft restrictions

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

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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 good 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, 2-3 mil profile
Concrete & Masonry	
Immersion:	SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI 03732, CSP 1-3

TINTING

Do not Tint

APPLICATION CONDITIONS

Temperature:	40°F minimum, 110°F maximum (air, surface, and material) At least 5°F above dew point
Relative humidity:	85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:	
PartA:	1 and 5 gallon containers
Part B:	1 and 5 gallon containers
Weight per gallon:	12.7 ± 0.2 lb mixed, may vary by color

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use and application bulletin before use.

WARRANTY

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Industrial & Marine Coatings

Certified to NSF/ANSI 61

MACROPOXY® 646 NSF

FAST CURE EPOXY

PART A	B58WX610	MILL WHITE
PART A	B58LX600	LIGHT BLUE
PART B	B58VX600	HARDENER

APPLICATION BULLETIN

Revised 7/06

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.

Carbon Steel, Immersion Service:
Clean and degrease the surface prior to abrasive blasting per SSPC-SP 1 Solvent Cleaning. Methods described in SSPC-SP 1 include solvents, alkali, detergent/water, emulsions, and steam. The surface shall be abrasive blasted to SSPC-SP10/NACE No. 2 Near-White Blast Cleaning with a 2 - 3 mil profile. The anchor pattern shall be sharp with no evidence of a polished 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, Atmospheric Service:
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). Prime any bare steel within 8 hours or before flash rusting occurs.

Ductile Iron, Immersion Service:
Refer to National Association of Pipe Fabricators Surface Preparations Standard NAPF 500-03 as follows:

a. NAPF 500-03-01 "Solvent Cleaning"
b. NAPF 500-03-02 "Hand Tool Cleaning"
c. NAPF 500-03-03 "Power Tool Cleaning"
d. NAPF 500-03-04 "Abrasive Blast Cleaning of Ductile Iron Pipe".

Concrete and Masonry, Immersion Service:
Decontamination of the concrete surface requires the removal of oils, grease, wax, fatty acids and other contaminants and may be accomplished by the use of detergent scrubbing with a Sherwin-Williams cleaner and degreaser, low pressure water cleaning (less than 5,000 psi), steam cleaning, or chemical cleaning.The preferred methods for creating a surface profile, including the removal of dirt, dust, laitance and curing compounds, is abrasive blasting or scarifying to achieve an ICRI surface equivalent to CSP1-3. See ICRI Technical Guideline No. 03732 for additional information.

Previously Painted Surfaces:
If in sound condition, clean the surface of all foreign material. Scarify the surface to create the desired surface profile. Apply coatings on a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary.

APPLICATION CONDITIONS

Temperature:	40°F minimum, 110°F maximum (air, surface, and material) At least 5°F 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 R7K15

Airless Spray

Pump	30:1
Pressure	2800 - 3000 psi
Hose	1/4" ID
Tip	.017" - .023"
Filter	60 mesh
Reduction	As needed up to 10% by volume

Brush

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

Roller

Cover	3/8" woven with phenolic core
Reduction	As needed up to 10% by volume

Recommended Spreading Rate per coat:

	Standard	AWWA
Wet mils:	4.2 - 8.3	4.2 - 8.3
Dry mils:	3.0 - 6.0*	3.0 - 6.0
Coverage:	192 - 384	192 - 384
	sq ft/gal approximate	

*See recommended systems on product information page

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

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Industrial & Marine Coatings

Certified to NSF/ANSI 61

MACROPOXY® 646 NSF

FAST CURE EPOXY

PART A	B58WX610	MILL WHITE
PART A	B58LX600	LIGHT BLUE
PART B	B58VX600	HARDENER

APPLICATION BULLETIN

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with 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 prior to application. Re-stir before using.

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

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

Recommended Spreading Rate per coat:

	Standard	AWWA
Wet mils:	7.0 - 13.5	4.2 - 8.3
Dry mils:	5.0 - 10.0*	3.0 - 6.0*
Coverage:	116 - 232	192 - 384

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

* See Recommended Systems on reverse side

Drying Schedule @ 7.0 mils wet and 50% RH:

	@ 40°F	@ 77°F	@ 100°F
To touch:	4-5 hours	2 hours	1½ hours
To handle:	48 hours	8 hours	4½ hours
To recoat: minimum:	48 hours	8 hours	4½ hours
maximum:	3 months	3 months	3 months
Cure for immersion:	14 days	7 days	4 days

If maximum recoat time is exceeded, scarify surface before recoating.

Drying time is temperature, humidity and film thickness dependent.

For **Potable Water Service**, allow a minimum cure time of 7days at 77°F prior to placing in service. Sterilize and rinse per AWWA C652.

Pot Life:	10 hours	4 hours	2 hours
Sweat-in-time:	30 minutes	30 minutes	15 minutes

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

APPLICATION 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, rough-ness 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, adhesion and NSF 61 Approval.

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 R7K15.

Tinting is not recommended for immersion service.

Quik-Kick Epoxy Accelerator is acceptable for atmospheric use.

Do not use Quik-Kick Epoxy Accelerator for immersion service when NSF certification is required.

Holiday Detection: Use a wet sponge-type detector such as KD Bird Dog or equivalent equipment per manufacturer's recommendation. Test only cured coating, as solvent entrapment in fresh films may provide false readings.

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer R7K15.
Clean tools immediately after use with Reducer R7K15.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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.

Industrial & Marine Coatings

SILVER-BRITE® HI-HEAT RESISTING ALUMINUM PAINT

B59S3

PRODUCT INFORMATION

Revised 4/05

PRODUCT DESCRIPTION

SILVER-BRITE HI-HEAT RESISTING ALUMINUM PAINT is a ready-to-use high heat resisting paint for interior exposures providing heat resistance up to 700°F.

- Heat reflective
- Maintains "Sheen"
- Resists discoloration

RECOMMENDED USES

For use over prepared steel surfaces in normal and high temperature (up to 700°F) interior environments.

- Interior exposures
- Hot steel surfaces such as:
  - Furnaces
  - Piping
  - Boilers
  - Stills
  - Stacks
  - Industrial Mufflers

PRODUCT CHARACTERISTICS

Finish:	Aluminum Sheen
Color:	Aluminum
Volume Solids:	20% ± 2%
Weight Solids:	32% ± 2%
VOC (EPA Method 24):	<620 g/L; 5.20 lb/gal

Recommended Spreading Rate per coat:

Wet mils:	2.0 - 2.5
Dry mils:	0.4 - 0.5 (critical)
Coverage:	640 - 760 sq ft/gal approximate

Drying Schedule @ 2.0 mils wet @ 50% RH:

	@50°F	@ 77°F	@100°F
To touch:	4 hours	2-3 hours	30 minutes
To recoat:	18 hours	10 hours	3 hours
To cure:	12 days	10 days	3 days

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

Shelf Life:	36 months, unopened Store indoors at 40°F to 100°F.
Flash Point:	100°F, PMCC
Reducer:	Not recommended
Clean Up:	Mineral Spirits, R1K4

PERFORMANCE CHARACTERISTICS

- Brilliant aluminum appearance
- Heat reflective
- Dry heat resistant to 700°F
- Maintains "sheen"
- Resists discoloration
- Long term interior protection against fumes and moisture.
- Designed to be applied to cool, clean steel surface.

continued on back

Industrial & Marine Coatings

SILVER-BRITE® HI-HEAT RESISTING ALUMINUM PAINT

B59S3

PRODUCT INFORMATION

Recommended Systems

Steel, interior, up to 700°F:
2 cts. Silver-Brite Hi-Heat Resisting Aluminum Paint @ 0.4 - 0.5 mils dft/ct

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, below 500°F:	SSPC-SP6
Iron & Steel, above 500°F:	SSPC-SP10
	0.5 - 1.0 mils profile

Tinting

Do not tint.

Application Conditions

Temperature:	50°F minimum, 120°F maximum (air, surface, and material)
	At least 5°F above dew point
Relative humidity:	85% maximum

Refer to product Application Bulletin for detailed application information.

Ordering Information

Packaging:	1 and 5 gallon containers
Weight per gallon:	7.50 ± 0.2 lb

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.

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SILVER-BRITE® HI-HEAT RESISTING ALUMINUM PAINT

B59S3

APPLICATION BULLETIN

Revised 4/05

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.

Iron & Steel, atmospheric service, below 500°F
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (0.5-1.0 mil maximum). Coat any bare steel the same day as it is cleaned or before flash rusting occurs.

Iron & Steel, atmospheric service, above 500°F
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (0.5-1.0 mil maximum). Coat any bare steel the same day as it is cleaned or before flash rusting occurs.

APPLICATION CONDITIONS

Temperature:	50°F minimum, 120°F maximum (air, surface, and material) At least 5°F 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 ..... Not recommended

Clean Up ..... Mineral Spirits, R1K4

Airless Spray
Pressure ..... 2000 psi
Hose ..... 1/4" ID
Tip ..... .015"

Conventional Spray
Gun ..... Binks 95
Fluid Nozzle 63C
Air Nozzle 63PB
Atomization Pressure .. 60 psi
Fluid Pressure ..... 20 psi

Brush
Brush ..... Natural Bristle

Roller
Cover ..... 1/4" woven with phenolic core

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

continued on back

SHERWIN WILLIAMS

Industrial & Marine Coatings

SILVER-BRITE® HI-HEAT RESISTING ALUMINUM PAINT

B59S3

APPLICATION BULLETIN

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Lightly stir before use. Do not shake with mechanical shaker or overly agitate, as a dull, nonuniform, mottled appearance will result.

For best results, apply to a cool surface between 50°F -100°F. As the temperature rises sufficiently to burn off the vehicle, the aluminum fuses to the surface, becoming an integral part of the metal. Do not use a metal primer.

Apply in a thin, even coat, carefully following the coverage and film build recommendations. A heavy, uneven coat will fail at elevated temperatures due to the combustion gases formed by disintegration of the aluminum paint binder, causing "pop-ups" in the paint film. Allow the first coat to dry 10-12 hours before applying the second coat.

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

Recommended Spreading Rate per coat:

Wet mils:	2.0 - 2.5
Dry mils:	0.4 - 0.5 (critical)
Coverage:	640 - 760 sq ft/gal approximate

Drying Schedule @ 2.0 mils wet @ 50% RH:

	@50°F	@ 77°F	@100°F
To touch:	4 hours	2-3 hours	30 minutes
To recoat:	18 hours	10 hours	3 hours
To cure:	12 days	10 days	3 days

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

Special care should be exercised while using this product for maximum performance. Film thickness and surface preparation are critical. Be especially concerned at lap areas and when using airless spray. Excessive film thickness will cause blistering and peeling. Insufficient film thickness may lead to premature rusting of the surface.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

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.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Mineral Spirits, R1K4.

For best results, apply to a cool surface between 60°F -90°F.

Do not apply at greater than 0.5 mils dft/ct.

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Mineral Spirits, R1K4. Clean tools immediately after use with Mineral Spirits, R1K4. Follow manufacturer's safety recommendations when using any solvent.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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DISCLAIMER

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BLACK & VEATCH

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Black & Veatch Corporation

City of Geneva
Geneva Drinking Water Treatment Facility

B&V Project 137804.511
File G1.60

Joey Metzloff, Project Manager
Williams Brothers Construction Inc.
P.O. Box 1366
Peoria, IL 61654-

Shop Dwg No. 080C - Protective Coatings
Spec or Drawing No. 09940

Date In 29-Mar-07
Date Out 10-Apr-07

General Comments:

1. Note: Per 3-7, concrete surfaces to be coated with epoxy enamel shall be filled with epoxy concrete filler and surfacer so that a continuous film is obtained, except where concrete is dampproofed with epoxy enamel.

Item No.	Subject	Review Status
1	Protective Coatings	Exceptions Noted

Comments:

1. System C2 (on pg 5 of submittal): Per 2-2.02, provide Sherwin Williams Armorseal 1000HS, nonskid epoxy enamel for concrete floors and curbed areas. Macropoxy 646 is not acceptable for floors and curbed areas.

Engineer's review of drawings and data submitted by Contractor covers only general conformity to the Drawings and Specifications, external connections, and dimensions which affect the layout. Engineer's review does not indicate a thorough review of all dimensions, quantities, and details of the material, equipment, devices, or item shown. Engineer's review shall not relieve Contractor of Contractor's responsibility for errors, omissions, or deviations in the drawings and data, nor of the Contractor's sole responsibility for compliance with the Contract Documents.

Very truly yours,

Black & Veatch Corporation

Barney G. Fullington, P.E.

cc: Mr. Mike Martens - 1 copy
Mr. Carl Goforth - 1 copy
File - 2 copies

CITY OF GENEVA
GENEVA DRINKING WATER TREATMENT FACILITY
BLACK & VEATCH PROJECT NO. 137804

WILLIAMS BROTHERS CONSTRUCTION, INC.

PEORIA, IL 61654

WB SUBMITTAL NO. / REVISION: 80C

SPECIFICATION REFERENCE: 09940

DRAWING REFERENCE:

TYPE OF SUBMITTAL:

- [X] SHOP DRAWING
- [ ] O&M MANUAL
- [ ] ELECTRONIC O&M MANUAL

CHECKED / REVIEWED BY: **Joey Metzloff** DATE: 3/28/07

BUILDING / STRUCTURE: ALL

EQUIPMENT / MATERIAL: Protective Coatings

VARIANCES / DEVIATIONS:

NOTES:

☐ NO EXCEPTIONS NOTED
☒ EXCEPTIONS NOTED
☐ RETURNED FOR CORRECTION
☐ RECORD COPY

APR 10 2007

REVIEW DOES NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS, OMISSIONS, OR DEVIATIONS FROM CONTRACT REQUIREMENTS
BLACK & VEATCH

APPROVED AS NOTED SUBJECT TO COMPLIANCE WITH THE CONTRACT DOCUMENTS AND ARCHITECTS APPROVAL FOR DESIGN AND GENERAL ARRANGEMENT

MAR 28 2007

WILLIAMS BROTHERS CONSTRUCTION, INC.
GENERAL CONTRACTOR
BY

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A2- F
Iron and steel components of the silo structures exposed to view in interior locations, including shell, support members, access ladder and safety cage, etc. Cast iron, carbon steel and stainless steel piping inside buildings, including valves, fittings, flanges, bolts, supports and previously primed galvanized surfaces. Supports and miscellaneous metal for equipment handling corrosive chemicals indoor.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Total system	20.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams Initials
Painting Applicator: Simon Watt Initials KM

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A6- F
Non-galvanized structural and miscellaneous steel exposed to view or to the elements in exterior locations. Cast iron and steel piping above grade exposed to elements and to outdoor view, including valves, fittings, flanges, bolts, supports, and previously primed galvanized surfaces. Also, supports and misc. metal for equipment handling corrosive chemicals (outside) All iron and steel components of the silo structure in exterior locations.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Intermediate coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Finish coat	6.0 mils	Sherwin Williams Acrolon 218HS (B65 series)
Total system	16.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)
Touch up will be Macropoxy 646 10.0 mils along with top coating with 6.0 mils of Acrolon 218HS.

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams Initials
Painting Applicator: Simon Watt Initials

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System A10- F
All metal harness anchorage for buried piping. Miscellaneous castings including manhole covers, steps and rings that are primed. Cast iron and steel piping in manholes, wet wells, and similar locations, including valves, fittings, flanges, bolts, supports and accessories.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Other

Coating	DFT (mils)	Manufacturer and Product
Shop primer		(identify product/type)
Touch up	25.0 mils	Sherwin Williams HI mil Sher Tar Epoxy
Intermediate coat	25.0 mils	Sherwin Williams HI mil Sher Tar Epoxy
Finish coat	25.0 mils	Sherwin Williams HI mil Sher Tar Epoxy
Total system	50.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed)
Covers all scenarios for A10-f.

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams
Painting Applicator: Simon Watt

Initials
Initials RM

Black & Veatch	Coating System Data Sheet	Fig 2-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System C2
Where indicated on drawings (including Chem Feed Room and CIP Area – coordinate with room finish schedule on sheet A34, walls adjacent to corrosive chemical storage and feed equipment.	

Surface Preparation Description
- Solvent SSPC-SP1 - Ferrous Metal Non immersion SSPC-SP6 - Ferrous Metal Immersion - SSPC-SP10 - SSPC-SP5 X - Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Third Coat		
Total system	20.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt	Initials CA Initials RM

Black & Veatch	Coating System Data Sheet	Fig 1-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System C2
Where indicated on drawings, (including Chem Feed Room and CIP Area – Coordinate with room finish schedule on sheet A34 and section 09880), floors and curbed areas adjacent to corrosive chemical storage and feed equipment.	

Surface Preparation Description

- Solvent SSPC-SP1
- Ferrous Metal Non immersion SSPC-SP6
- Ferrous Metal Immersion
  - SSPC-SP10
  - SSPC-SP5

X - Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat	10.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Third Coat		
Total system	20.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)
Floors to receive different product per pgs 10 and 16 of 09940

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams
Painting Applicator: Simon Watt

Initials CH
Initials RM

Black & Veatch	Coating System Data Sheet	Fig 1-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System E5
All metal surfaces unless otherwise specified, which will be submerged or buried, all or in part, including valves, but excluding piping laid in the ground.	

Surface Preparation Description
- Solvent SSPC-SP1 - Ferrous Metal Non immersion SSPC-SP6 - Ferrous Metal Immersion X - SSPC-SP10 - SSPC-SP5 - Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	10.0 mils	Sherwin Williams Macropoxy 646 NSF (B58 series)
Second Coat	10.0 mils	Sherwin Williams Macropoxy 646 NSF (B58 series)
Third Coat	10.0 mils	Sherwin Williams Macropoxy 646 NSF (B58 series)
Total system	30.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.) For immersion. Product not to be tinted.

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams
Painting Applicator: Simon Watt

Initials
Initials RM

Black & Veatch	Coating System Data Sheet	Fig 1-09940

Industrial & Marine Coatings

CLASSIFIED UL WATER QUALITY Drinking Water System Component ANSI/NSF 61 3JGH

4.56

MACROPOXY® 646 PW

POTABLE WATER EPOXY

PART A	B58WX610	MILL WHITE
PART A	B58LX600	LIGHT BLUE
PART B	B58VX600	HARDENER

PRODUCT INFORMATION

Revised 3/07

PRODUCT DESCRIPTION

MACROPOXY 646 PW EPOXY is a high solids, high build, fast drying, polyamide epoxy classified by UL to ANSI/NSF 61 as a tank lining for potable water storage tanks. The high solids content ensures adequate protection of sharp edges, corners, and welds.

RECOMMENDED USES

- As an interior tank lining for potable water storage tanks of 1,500 gallon minimum tank size.
- Conforms to AWWA D102-03 ICS #1, #2, and #5, and OCS #5***
- Suitable for use with cathodic protection systems

***Refer to respective systems

PRODUCT CHARACTERISTICS

Finish: Semi-Gloss

Color: Mill White and Light Blue

Volume Solids: 72% ± 2%, mixed

Weight Solids: 85% ± 2%, mixed

VOC (EPA Method 24): mixed
Unreduced: <250 g/L; 2.08 lb/gal
Reduced 10%: <300 g/L; 2.50 lb/gal

Mix Ratio: 1:1 by volume

Recommended Spreading Rate per coat:

	Standard	AWWA
Wet mils:	7.0 - 13.5	4.2 - 8.3
Dry mils:	5.0 - 10.0*	3.0 - 6.0*
Coverage:	116 - 232	192 - 384

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

*See Recommended Systems on reverse side

Drying Schedule @ 7.0 mils wet and 50% RH:

	@ 40°F	@ 77°F	@ 100°F
To touch:	4-5 hours	2 hours	1½ hours
To handle:	48 hours	8 hours	4½ hours
To recoat:			
minimum:	48 hours	8 hours	4½ hours
maximum:	3 months	3 months	3 months
Cure for immersion:	14 days	7 days	4 days

If maximum recoat time is exceeded, scarify surface before recoating.

Drying time is temperature, humidity and film thickness dependent.

For **Potable Water Service**, allow a minimum cure time of 7 days at 77°F prior to placing in service. Sterilize and rinse per AWWA C652.

Pot Life:	10 hours	4 hours	2 hours
Sweat-In-time:	30 minutes	30 minutes	15 minutes

Shelf Life: 36 months, unopened
Store indoors at 40°F to 100°F

Flash Point: 91°F, TCC, mixed

Reducer/Clean Up: Reducer, R7K15

PERFORMANCE CHARACTERISTICS

System Tested: (unless otherwise indicated)
Substrate: Steel
Surface Preparation: SSPC-SP10
1 ct. Macropoxy 646 PW Fast Cure Epoxy @ 6.0 mils dft

Abrasion Resistance:
Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load
Result: 84 mg loss

Adhesion:
Method: ASTM D4541
Result: 1,037 psi

Corrosion Weathering, Zinc Clad II Plus Primer:
Method: ASTM D5894, 36 cycles, 12,000 hours
Result: Rating 10 per ASTM D714 for blistering
Rating 9 per ASTM D610 for rusting

Direct Impact Resistance:
Method: ASTM D2794
Result: 30 in. lb.

Dry Heat Resistance:
Method: ASTM D2485
Result: 250°F

Flexibility:
Method: ASTM D522, 180° bend, 3/4" mandrel
Result: Passes

Humidity Resistance
Method: ASTM D4585, 6000 hrs
Result: No blistering, cracking, or rusting

Immersion: Galvapac/2 cts Macropxy 646 PW)
Method: 5 year potable water
Result: Rating 10 per ASTM D610 for Rusting
Result: Rating 10 Per ASTM D714 for Blistering

Immersion:
Method: 18 months fresh and salt water
Result: Passes, no rusting, blistering, or loss of adhesion

Pencil Hardness:
Method: ASTM D3363
Result: 3H

Water Vapor Permeance:
Method: ASTM D1653, Method B
Result: 1.16 grains/ day

Epoxy coatings may darken or discolor following application and curing.

continued on back

7

Industrial & Marine Coatings

WATER QUALITY

MACROPOXY® 646 PW

POTABLE WATER EPOXY

PART A	B58WX610	MILL WHITE
PART A	B58LX600	LIGHT BLUE
PART B	B58VX600	HARDENER

PRODUCT INFORMATION

RECOMMENDED SYSTEMS

Immersion, Steel:

***AWWA D102-03: Inside Coating System No. 1**
(minimum AWWA DFT 8.0 mils)
1 ct. Macropoxy 646 PW @ 3.0 mils dft
1 ct. Macropoxy 646 PW @ 5.0 mils dft

***AWWA D102-03: Inside Coating System No. 2**
(minimum AWWA DFT 12.0 mils)
1 ct. Macropoxy 646 PW @ 3.0 mils dft
1 ct. Macropoxy 646 PW @ 4.0 mils dft
1 ct. Macropoxy 646 PW @ 5.0 mils dft

***AWWA D102-03: Inside Coating System No. 3**
(minimum AWWA DFT 10.0 mils)
1 ct. Zinc Clad II LV or Plus @ 2.0 mils dft
1 ct. Macropoxy 646 PW @ 3.0 mils dft
1 ct. Macropoxy 646 PW @ 5.0 mils dft

***AWWA D102-03: Inside Coating System No. 5**
(minimum AWWA DFT 10.0 mils)
1 ct. Corothane I Galvapac PW @ 2.0 mils dft
2 cts. Macropoxy 646 PW @ 4.0 mils dft/ct

Steel, forced cure (100 gallon minimum tank size):
2 cts. Macropoxy 646 PW @ 5.0 - 6.0 mils dft/ct
•12 mils maximum film thickness•Curing requirements
- •Flash 2 hours @ 75°F
- •24 hours @ 150°
- •24 hours @ 75°F

Atmospheric, Steel:

***AWWA D102-03: Outside Coating System No. 5**
(minimum DFT 6.0 mils)
1 ct. Macropoxy 646 PW @ 2.0 mils dft
1 ct. Macropoxy 646 PW @ 2.0 mils dft
1 ct. Acrolon 218HS @ 2.0 mils dft

***AWWA D102-03: Outside Coating System No. 6**
(minimum DFT 6.0 mils)
1 ct. Corothane I GalvaPac PW @ 2.0 mils dft
1 ct. Macropoxy 646 PW @ 2.0 mils dft
1 ct. Acrolon 218HS @ 2.0 mils dft

Concrete/Masonry, smooth:
2 cts.Macropoxy 646 PW @ 3.0 - 6.0 mils dft/ct

Refer to UL.com for maximum dft restrictions

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 good 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, 2-3 mil profile
Concrete & Masonry	
Immersion:	SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI 03732, CSP 1-3

TINTING

Do not Tint

APPLICATION CONDITIONS

Temperature:	40°F minimum, 110°F maximum (air, surface, and material)
	At least 5°F above dew point
Relative humidity:	85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:	
Part A:	1 and 5 gallon containers
Part B:	1 and 5 gallon containers
Weight per gallon:	12.7 ± 0.2 lb mixed, may vary by color

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use and application bulletin before use.

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.

SHERWIN WILLIAMS.

Industrial & Marine Coatings

CLASSIFIED UL WATER QUALITY Drinking Water System Component ANSI/NSF 61 3JGH

4.56A

MACROPOXY® 646 PW

POTABLE WATER EPOXY

PART A	B58WX610	MILL WHITE
PART A	B58LX600	LIGHT BLUE
PART B	B58VX600	HARDENER

APPLICATION BULLETIN

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with 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 prior to application. Re-stir before using.

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

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

Recommended Spreading Rate per coat:

	Standard	AWWA
Wet mils:	7.0 - 13.5	4.2 - 8.3
Dry mils:	5.0 - 10.0*	3.0 - 6.0*
Coverage:	116 - 232	192 - 384

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

* See Recommended Systems on reverse side

Drying Schedule @ 7.0 mils wet and 50% RH:

	@ 40°F	@ 77°F	@ 100°F
To touch:	4-5 hours	2 hours	1½ hours
To handle:	48 hours	8 hours	4½ hours
To recoat:			
minimum:	48 hours	8 hours	4½ hours
maximum:	3 months	3 months	3 months
Cure for Immersion:	14 days	7 days	4 days

If maximum recoat time is exceeded, scarify surface before recoating.

Drying time is temperature, humidity and film thickness dependent.

For **Potable Water Service**, allow a minimum cure time of 7days at 77°F prior to placing in service. Sterilize and rinse per AWWA C652.

Pot Life:	10 hours	4 hours	2 hours
Sweat-in-time:	30 minutes	30 minutes	15 minutes

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

APPLICATION 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, rough-ness 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, adhesion and UL ANSI/ NSF 61 approval.

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 R7K15.

Tinting is not recommended for immersion service.

Quik-Kick Epoxy Accelerator is acceptable for atmospheric use.

Do not use Quik-Kick Epoxy Accelerator for immersion service when UL certification is required.

Holiday Detection: Use a wet sponge-type detector such as KD Bird Dog or equivalent equipment per manufacturer's recommendation. Test only cured coating, as solvent entrapment in fresh films may provide false readings.

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer R7K15.
Clean tools immediately after use with Reducer R7K15.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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Industrial & Marine Coatings

CLASSIFIED UL WATER QUALITY Drinking Water System Component ANSI/NSF 61 3JGH

4.56A

MACROPOXY® 646 PW

POTABLE WATER EPOXY

PART A	B58WX610	MILL WHITE
PART A	B58LX600	LIGHT BLUE
PART B	B58VX600	HARDENER

APPLICATION BULLETIN

Revised 3/07

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.

Carbon Steel, Immersion Service:
Clean and degrease the surface prior to abrasive blasting per SSPC-SP 1 Solvent Cleaning. Methods described in SSPC-SP 1 include solvents, alkali, detergent/water, emulsions, and steam. The surface shall be abrasive blasted to SSPC-SP10/NACE No. 2 Near-White Blast Cleaning with a 2 - 3 mil profile. The anchor pattern shall be sharp with no evidence of a polished 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, Atmospheric Service:
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). Prime any bare steel within 8 hours or before flash rusting occurs.

Ductile Iron, Immersion Service:
Refer to National Association of Pipe Fabricators Surface Preparations Standard NAPF 500-03 as follows:

a. NAPF 500-03-01 "Solvent Cleaning"
b. NAPF 500-03-02 "Hand Tool Cleaning"
c. NAPF 500-03-03 "Power Tool Cleaning"
d. NAPF 500-03-04 "Abrasive Blast Cleaning of Ductile Iron Pipe".

Concrete and Masonry, Immersion Service:
Decontamination of the concrete surface requires the removal of oils, grease, wax, fatty acids and other contaminants and may be accomplished by the use of detergent scrubbing with a Sherwin-Williams cleaner and degreaser, low pressure water cleaning (less than 5,000 psi), steam cleaning, or chemical cleaning.The preferred methods for creating a surface profile, including the removal of dirt, dust, laitance and curing compounds, is abrasive blasting or scarifying to achieve an ICRI surface equivalent to CSP1-3. See ICRI Technical Guideline No. 03732 for additional information.

Previously Painted Surfaces:
If in sound condition, clean the surface of all foreign material. Scarify the surface to create the desired surface profile. Apply coatings on a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary.

APPLICATION CONDITIONS

Temperature:	40°F minimum, 110°F maximum (air, surface, and material) At least 5°F 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 R7K15

Airless Spray

Pump	30:1
Pressure	2800 - 3000 psi
Hose	1/4" ID
Tip	.017" - .023"
Filter	60 mesh
Reduction	As needed up to 10% by volume

Brush

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

Roller

Cover	3/8" woven with phenolic core
Reduction	As needed up to 10% by volume

Recommended Spreading Rate per coat:

	Standard	AWWA
Wet mils:	4.2 - 8.3	4.2 - 8.3
Dry mils:	3.0 - 6.0*	3.0 - 6.0
Coverage:	192 - 384	192 - 384
	sq ft/gal approximate	

*See recommended systems on product Information page

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

continued on back

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System F7
Aluminum materials exposed to elements outdoors. Also, aluminum and galvanized ductwork exposed outdoors.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Ferrous Metal Non immersion SSPC-SP6 - Ferrous Metal Immersion - SSPC-SP10 - SSPC-SP5 - Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	5.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat	5.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Third Coat	6.0 mils	Sherwin Williams Acrolon 218HS (B65 series)
Total system	16.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)

Project: City of Geneva, WTP Coatings Manufacturer: Sherwin Williams Painting Applicator: Simon Watt		Initials CA Initials RM
Black & Veatch	Coating System Data Sheet	Fig 1-09940

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System G7
Aluminum and galvanized ductwork exposed outdoors.	

Surface Preparation Description
X - Solvent SSPC-SP1
- Ferrous Metal Non immersion SSPC-SP6
- Ferrous Metal Immersion
- SSPC-SP10
- SSPC-SP5
- Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	5.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Second Coat	5.0 mils	Sherwin Williams Macropoxy 646 (B58 series)
Third Coat	6.0 mils	Sherwin Williams Acrolon 218HS (B65 series)
Total system	16.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams
Painting Applicator: Simon Watt

Initials
Initials R.M

City of Geneva, Illinois Water Treatment Plant
Section 09940
Simon Watt

Surface Description	System H12
Engine exhaust piping. Also, Blower and compressor discharge piping and other surfaces which will be hot during operation.	

Surface Preparation Description
X - Solvent SSPC-SP1 - Ferrous Metal Non immersion SSPC-SP6 - Ferrous Metal Immersion - SSPC-SP10 - SSPC-SP5 - Other - Concrete SSPC-SP13

Coating	DFT (mils)	Manufacturer and Product
First Coat (primer)	1.0 mils	Sherwin Williams Silver Brite High Heat
Second Coat	1.0 mils	Sherwin Williams Silver Brite High Heat
Third Coat		
Total system	2.0 mils	Not less than minimum thickness specified

Notes: (Attached if needed.)
Not to exceed 2.0 mils. For best product performance, 2.0 mils is required for our coating (Silver Brite) even though specification states .5 dft per coat.

Project: City of Geneva, WTP
Coatings Manufacturer: Sherwin Williams Initials CH
Painting Applicator: Simon Watt Initials RM

Black & Veatch	Coating System Data Sheet	Fig 1-09940