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Submittal No.: 06a, Paint Product Data Sheets

Date: June 3, 2015

Vermont Department of Transportation
Northeast Regional Construction Office
Attn: Mr. Ron Gray
347 Emerson Falls Road, Suite 5
St. Johnsbury, VT 05819
(Phone) (802) 751-3295; (Cell) (802) 793-3161
(Fax) (802) 751-3297; Ron.Gray@state.vt.us

Description: Proposal/Contract Number: Bradford-Newbury IM BPNT (14)
Letting Date: 10/10/14; Award Date: 11/03/14
Project Description: Bridge Painting of Five Bridges
In the Towns of Bradford & Newbury, VT
Contract Amount: \$4,327,785.00; Completion Date: 08/26/16

Contractor: MONOKO, LLC

Reviewed & Approved By: Keri Monokandilos

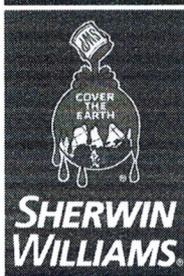
Keri Monokandilos, Manager

Date: 06/3/2015

Engineer: Peter Hodgson, Resident Engineer
347 Emerson Falls Road, Suite 5
St. Johnsbury, VT 05819
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Revision:

Updated Macropoxy 646, 920 penetrating epoxy pre-primer, Caulking-Stamped -1H



Protective & Marine Coatings

MACROPOXY® 646 FAST CURE EPOXY

PART A B58-600 SERIES
PART B B58V600 HARDENER

Revised: March 9, 2015

PRODUCT INFORMATION

4.53

PRODUCT DESCRIPTION

MACROPOXY 646 FAST CURE EPOXY is a high solids, 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
- Low odor
- Outstanding application properties
- Meets Class A requirements for Slip Coefficient, 0.36 @ 6 mils / 150 microns dft (Mill White only)
- Chemical resistant
- Abrasion resistant

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Mill White, Black and a wide range of colors available through tinting
Volume Solids:	72% ± 2%, mixed, Mill White
Weight Solids:	85% ± 2%, mixed, Mill White
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:

	Minimum	Maximum
Wet mils (microns)	7.0 (175)	13.5 (338)
Dry mils (microns)	5.0* (125)	10.0* (250)
~Coverage sq ft/gal (m²/L)	116 (2.8)	232 (5.7)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	1152 (28.2)	

*May be applied at 3.0-10.0 mils (75-250 microns) dft as an intermediate coat in a multi-coat system. Refer to Recommended Systems (page 2). See Performance Tips section also.

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

Drying Schedule @ 7.0 mils wet (175 microns):

	@ 35°F/1.7°C	@ 77°F/25°C 50% RH	@ 100°F/38°C
To touch:	4-5 hours	2 hours	1.5 hours
To handle:	48 hours	8 hours	4.5 hours
To recoat:			
minimum:	48 hours	8 hours	4.5 hours
maximum:	1 year	1 year	1 year
To cure:			
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. Paint temperature must be at least 40°F (4.5°C) minimum.

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

When used as an intermediate coat as part of a multi-coat system:

Drying Schedule @ 5.0 mils wet (125 microns):

	@ 35°F/1.7°C	@ 77°F/25°C 50% RH	@ 100°F/38°C
To touch:	3 hours	1 hour	1 hour
To handle:	48 hours	4 hours	2 hours
To recoat:			
minimum:	16 hours	4 hours	2 hours
maximum:	1 year	1 year	1 year

PRODUCT CHARACTERISTICS (CONT'D)

Shelf Life:	36 months, unopened Store indoors at 40°F (4.5°C) to 110°F (43°C).
Flash Point:	91°F (33°C), TCC, mixed
Reducer/Clean Up:	Reducer, R7K15
In California:	Reducer R7K111 or Oxsol 100

PERFORMANCE CHARACTERISTICS

Substrate*: Steel
Surface Preparation*: SSPC-SP10/NACE 2
System Tested*:
1 ct. Macropoxy 646 Fast Cure @ 6.0 mils (150 microns) dft
*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	84 mg loss
Accelerated Weathering-QUV¹	ASTM D4587, QUV-A, 12,000 hours	Passes
Adhesion	ASTM D4541	1,037 psi
Corrosion Weathering¹	ASTM D5894, 36 cycles, 12,000 hours	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 per rusting
Nuclear Decontamination	ASTM D4256/ANSI N 5.12	99% Water Wash; 95% Overall
Direct Impact Resistance²	ASTM D2794	120 in. lb.
Dry Heat Resistance	ASTM D2485	250°F (121°C)
Exterior Durability	1 year at 45° South	Excellent, chalks
Flexibility	ASTM D522, 180° bend, 3/4" mandrel	Passes
Fuel Contribution	NFPA 259	5764 btu/lb
Humidity Resistance	ASTM D4585, 6000 hours	No blistering, cracking, or rusting
Immersion	1 year fresh and salt water	Passes, no rusting, blistering, or loss of adhesion
Radiation Tolerance	ASTM D4082 / ANSI 5.12	Pass at 21 mils (525 microns)
Pencil Hardness	ASTM D3363	3H
Salt Fog Resistance¹	ASTM B117, 6,500 hours	Rating 10 per ASTM D610 for rusting; Rating 9 per ASTM D1654 for corrosion
Slip Coefficient, Mill White*	AISC Specification for Structural Joints Using ASTM A325 or ASTM A490 Bolts	Class A, 0.36
Surface Burning	ASTM E84/NFPA 255	Flame Spread Index 20; Smoke Development Index 35 (at 18 mils or 450 microns)
Water Vapor Permeance	ASTM D1653, Method B	1.16 US perms

Epoxy coatings may darken or discolor following application and curing.

*Refer to Slip Certification document

Footnotes:

¹ Zinc Clad II Plus Primer

² Two coats of Macropoxy 646 Fast Cure Epoxy

DISCLAIMER

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Protective & Marine Coatings

MACROPOXY® 646 FAST CURE EPOXY

PART A B58-600 SERIES
PART B B58V600 HARDENER

Revised: March 9, 2015

PRODUCT INFORMATION

4.53

RECOMMENDED USES

- Marine applications
- Fabrication shops
- Pulp and paper mills
- Power plants
- Offshore platforms
- Nuclear Power Plants
- Nuclear fabrication shops
- 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
- Acceptable for use in Canadian Food Processing facilities, categories: D1, D2, D3 (Confirm acceptance of specific part numbers/rexes with your SW Sales Representative)
- Conforms to AWWA D102 OCS #5
- Conforms to MPI # 108
- This product meets specific design requirements for non-safety related nuclear plant applications in Level II, III and Balance of Plant, and DOE nuclear facilities*.
- * Nuclear qualifications are NRC license specific to the facility.
- Suitable for use in the Mining & Minerals Industry

RECOMMENDED SYSTEMS

		Dry Film Thickness / ct.	
		Mils	(Microns)
Immersion and atmospheric:			
Steel:			
2 cts.	Macropoxy 646 Fast Cure Epoxy	5.0-10.0	(125-250)
Concrete/Masonry, smooth:			
2 cts.	Macropoxy 646 Fast Cure Epoxy	5.0-10.0	(125-250)
Concrete Block:			
1 ct.	Kem Cati-Coat HS Epoxy Filler/Sealer <i>as needed to fill voids and provide a continuous substrate.</i>	10.0-20.0	(250-500)
2 cts.	Macropoxy 646 Fast Cure Epoxy	5.0-10.0	(125-250)
Atmospheric:			
Steel:			
(Shop applied system, new construction, AWWA D102, can also be used at 3 mils / 75 microns minimum dft when used as an intermediate coat as part of a multi-coat system)			
1 ct.	Macropoxy 646 Fast Cure Epoxy	3.0-6.0	(75-150)
1-2 cts.	of recommended topcoat		
Steel:			
1 ct.	Recoatable Epoxy Primer	4.0-6.0	(100-150)
2 cts.	Macropoxy 646 Fast Cure Epoxy	5.0-10.0	(125-250)
Steel:			
1 ct.	Macropoxy 646 Fast Cure Epoxy	5.0-10.0	(125-250)
1-2 cts.	Acrolon 218 Polyurethane	3.0-6.0	(75-150)
	or Hi-Solids Polyurethane	3.0-5.0	(75-125)
	or SherThane 2K Urethane	2.0-4.0	(50-100)
	or Hydrogloss	2.0-4.0	(50-100)
Steel:			
2 cts.	Macropoxy 646 Fast Cure Epoxy	5.0-10.0	(125-250)
1-2 cts.	Tile-Clad HS Epoxy	2.5-4.0	(63-100)
Steel:			
1 ct.	Zinc Clad II Plus	2.0-4.0	(50-100)
1 ct.	Macropoxy 646 Fast Cure Epoxy	5.0-10.0	(125-250)
1-2 cts.	Acrolon 218 Polyurethane	3.0-6.0	(75-150)
Steel:			
1 ct.	Zinc Clad III HS	3.0-5.0	(75-125)
	or Zinc Clad IV	3.0-5.0	(75-125)
1 ct.	Macropoxy 646 Fast Cure Epoxy	3.0-10.0	(75-250)
1-2 cts.	Acrolon 218 Polyurethane	3.0-6.0	(75-150)
Aluminum:			
2 cts.	Macropoxy 646 Fast Cure Epoxy	5.0-10.0	(125-250)
Galvanizing:			
2 cts.	Macropoxy 646 Fast Cure Epoxy	5.0-10.0	(125-250)
FIRETEX ONLY:			
Steel & Galvanized Substrates being primed for FIRETEX only:			
1 ct.	Macropoxy 646 Fast Cure Epoxy	2.0-5.0	(50-125)

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-SP2/3
 - Immersion: SSPC-SP10/NACE 2, 2-3 mil (50-75 micron) profile
 - Aluminum: SSPC-SP1
 - Galvanizing: SSPC-SP1; See Surface Preparations section on page 3 for application of FIRETEX intumescent coating systems
- Concrete & Masonry
- Atmospheric: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3
 - Immersion: SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI No. 310.2R, CSP 2-4

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS056900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Blast	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Pitted & Rusted	D St 3	D St 3	SP 3	-

TINTING

Tint Part A with Maxitones 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: 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface)
40°F (4.5°C) minimum, 120°F (49°C) maximum (material)
At least 5°F (2.8°C) above dew point
- Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

- Packaging:
- Part A: 1 gallon (3.78L) and 5 gallon (18.9L) containers
 - Part B: 1 gallon (3.78L) and 5 gallon (18.9L) containers
- Weight: 12.9 ± 0.2 lb/gal ; 1.55 Kg/L mixed, may vary by color

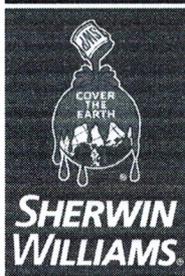
SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



Protective & Marine Coatings

MACROPOXY® 646 FAST CURE EPOXY

PART A
PART B

B58-600
B58V600

SERIES
HARDENER

Revised: March 9, 2015

APPLICATION BULLETIN

4.53

SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel, Atmospheric Service:

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

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 / 50-75 microns). 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.

In preparing galvanized steel substrates for the application of FIRE-TEX intumescent coating systems, Surface Preparation Specification SSPC-SP 16 must be followed obtaining a surface profile of minimum 1.5 mils (38 microns). Optimum surface profile will not exceed 2.0 mils (50 microns).

Concrete and Masonry

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

Concrete, Immersion Service:

For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 2-4.

Follow the standard methods listed below when applicable:

ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.

SSPC-SP 13/Nace 6 Surface Preparation of Concrete.

ICRI No. 310.2R Concrete Surface Preparation.

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.

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted	D St 3	SP 3	-

APPLICATION CONDITIONS

Temperature: 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface)
40°F (4.5°C) minimum, 120°F (49°C) maximum (material)
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer/Clean Up Reducer R7K15
In California..... Reducer R7K111

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

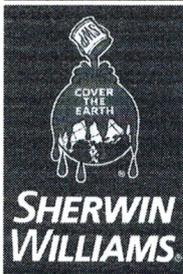
Brush..... Nylon/Polyester or Natural Bristle
Reduction..... As needed up to 10% by volume

Roller

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

Plural Component Spray ... Acceptable

Refer to April 2010 Technical Bulletin - "Application Guidelines for Macropoxy 646 Fast Cure Epoxy & Recoatable Epoxy Primer Utilizing Plural Component Equipment"
If specific application equipment is not listed above, equivalent equipment may be substituted.



Protective & Marine Coatings

MACROPOXY® 646 FAST CURE EPOXY

PART A
PART B

B58-600
B58V600

SERIES
HARDENER

Revised: March 9, 2015

APPLICATION BULLETIN

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APPLICATION PROCEDURES

Surface preparation must be completed as indicated. Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated 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 at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	7.0 (175)	13.5 (338)
Dry mils (microns)	5.0* (125)	10.0* (250)
~Coverage sq ft/gal (m ² /L)	116 (2.8)	232 (5.7)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	1152 (28.2)	

*May be applied at 3.0-10.0 mils (75-250 microns) dft in atmospheric conditions. Refer to Recommended Systems (page 2). See Performance Tips section also.

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

Drying Schedule @ 7.0 mils wet (175 microns):

	@ 35°F/1.7°C	@ 77°F/25°C 50% RH	@ 100°F/38°C
To touch:	4-5 hours	2 hours	1.5 hours
To handle:	48 hours	8 hours	4.5 hours
To recoat:			
minimum:	48 hours	8 hours	4.5 hours
maximum:	1 year	1 year	1 year
To cure:			
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.

Paint temperature must be at least 40°F (4.5°C) minimum.

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

When used as an intermediate coat as part of a multi-coat system:

Drying Schedule @ 5.0 mils wet (125 microns):

	@ 35°F/1.7°C	@ 77°F/25°C 50% RH	@ 100°F/38°C
To touch:	3 hours	1 hour	1 hour
To handle:	48 hours	4 hours	2 hours
To recoat:			
minimum:	16 hours	4 hours	2 hours
maximum:	1 year	1 year	1 year

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer R7K15. Clean tools immediately after use with Reducer R7K15. In California use Reducer R7K111. Follow manufacturer's safety recommendations when using any solvent.

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 R7K15. In California use Reducer R7K111.

Tinting is not recommended for immersion service.

Use only Mill White and Black for immersion service.

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

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

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

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

Acceptable for Concrete Floors.

Can be used as a metalizing sealer. Consult Technical Bulletin - Sealers for Thermal Spray Metalizing, or your local Sherwin-Williams representative.

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

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

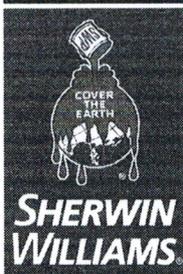
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WARRANTY

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**Protective
&
Marine
Coatings**

**MACROPOXY® 920 PRE-PRIME
PENETRATING EPOXY PRE-PRIMER**

**PART A
PART B**

**B58T101
B58V10**

**TRANSPARENT
HARDENER**

Revised: January 16, 2015

PRODUCT INFORMATION

4.50

PRODUCT DESCRIPTION

MACROPOXY 920 PRE-PRIME is a 100% solids, low VOC, penetrating epoxy primer designed for use over marginally prepared steel or concrete surfaces.

- A penetrating sealer for tight rusted surfaces
- A penetrating sealer for concrete and masonry surfaces
- Low viscosity
- Low VOC
- Barrier coat for hot solvent topcoats

PRODUCT CHARACTERISTICS

Finish: Medium Sheen

Color: Transparent

Volume Solids: 100%, calculated, mixed
70%, ASTM D2697,
(Helium Pycnometer)

VOC (EPA Method 24): <340 g/L; 2.8 lb/gal, mixed

Mix Ratio: 2 components, 3:1 ratio

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	1.5 (40)	2.0 (50)
Dry mils (microns)	1.5 (40)	2.0 (50)
~Coverage sq ft/gal (m²/L)		
Steel	800 (19.6)	1050 (25.7)
Concrete	400 (9.8)	500 (13.0)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	1600 (39.2)	

Drying Schedule @ 2.0 mils wet (50 microns):

	@ 40°F/4.5°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	18 hours	9.5 hours	7 hours
Tack-free:	32 hours	17 hours	14 hours
To recoat:			
minimum:	36 hours	12 hours	12 hours
maximum:	30 days	30 days	30 days
<i>Drying time is temperature, humidity, and film thickness dependent.</i>			
Pot Life:	8-10 hours	4 hours	3-4 hours
Sweat-in-Time:	None required		

Shelf Life:	12 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	152°F (67°C), PMCC, mixed
Reducer:	Not recommended
Clean Up:	Reducer #54, R7K54

RECOMMENDED USES

For use as a primer / sealer over prepared steel or concrete surfaces.

- Petrochem exploration and offshore platforms
- Over white rusted and zinc rich coatings
- Chalky surfaces in atmospheric conditions
- Industrial applications
- Marine applications
- Over marginally prepared steel when abrasive cleaning is not possible
- Suitable for use in USDA inspected facilities
- Nuclear Power Plants • DOE Nuclear Fuel Facilities
- Nuclear fabrication shops • DOE Nuclear Weapons Facilities
- This product meets specific design requirements for non-safety related nuclear plant applications in Level II, III and Balance of Plant, and DOE nuclear facilities*.

* Nuclear qualifications are NRC license specific to the facility.

PERFORMANCE CHARACTERISTICS

- Designed for industrial and marine environments
- Penetrates existing, tightly adhered rust to provide a "tight" substrate prior to subsequent coats
- Can also be used as a high performance primer/sealer for masonry surfaces
- Not for immersion service
- Dry heat resistance up to 200°F (93°C)

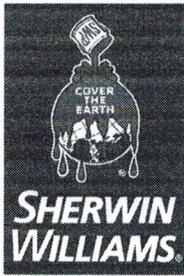
Test Name	Test Method	Results
Critical Radiant Flux*	NFPA 253	1.02 W/cm ²
Surface Burning**	ASTM E84/NFPA 255	Flame Spread Index 15; Smoke Development Index 55
Surface Burning***	ASTM E84/NFPA 255	Flame Spread Index 20; Smoke Development Index 85

*System tested (Report No. IM54.1157-02-01):
Macropoxy 920 Pre-Prime @ 1 mil (25 microns) dft
Cor-Cote HP Epoxy @ 51 mils (1,275 microns) dft

**System tested (Report No. IM54.1157-02-01):
Macropoxy 920 Pre-Prime @ 1.1 mils (27.5 microns) dft
Macropoxy 646 @ 19.8 mils (495 microns) dft

***System tested (Report No. IM54.1157-02-01):
Macropoxy 920 Pre-Prime @ 1.2 mils (30 microns) dft
Phenicon HS Epoxy Phenolic @ 18.8 mils (470 microns) dft

Epoxy coatings may darken or yellow following application and curing.



**Protective
&
Marine
Coatings**

**MACROPOXY® 920 PRE-PRIME
PENETRATING EPOXY PRE-PRIMER**

PART A **B58T101** **TRANSPARENT**
PART B **B58V10** **HARDENER**

Revised: January 16, 2015

PRODUCT INFORMATION

4.50

RECOMMENDED SYSTEMS

		Dry Film Thickness / ct.	
		Mils	(Microns)
Steel:			
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
2 cts.	Macropoxy HS	3.0-6.0	(75-150)
Steel, zinc rich primer:			
1 ct.	Zinc Clad IV	3.0-5.0	(75-125)
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
1 ct.	Macropoxy HS	3.0-6.0	(75-150)
1 ct.	Acrolon 218 HS Acrylic Polyurethane	3.0-6.0	(75-150)
Masonry and Concrete:			
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
1-2 cts.	Tile-Clad Hi-Solids	2.5-4.0	(63-100)
Previously Painted Surfaces:			
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
Acceptable topcoats:			
	Acrolon 218 HS		
	Pro Industrial DTM Acrylic		
	Epo-Plex Multi-Mil Epoxy		
	Hi-Solids Polyurethane		
	Macropoxy 646		
	Macropoxy HS		
	Polysiloxane XLE-80		
	Sher-Cryl HPA		
	Tile-Clad HS		
FIRETEX ONLY:			
Steel Substrates being primed for FIRETEX only:			
1 ct.	Zinc Clad IV	3.0-5.0	(75-125)
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)
Steel Substrates being primed for FIRETEX only:			
1 ct.	Zinc Clad II	2.0-4.0	(50-100)
1 ct.	Macropoxy 920 Pre-Prime	1.5-2.0	(40-50)

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-SP2
 Masonry / Concrete: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3
 Previously Painted: SSPC-SP1

Surface Preparation Standards				
Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS056900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted D St 3	D St 3	SP 3	-

TINTING

May be shaded with up to 2 oz of Maxitoner Colorants per gallon. Not controlled for tint strength.

APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 120°F (49°C) maximum (air, surface, and material)
 At least 5°F (2.8°C) above dew point
 Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:
 Part A: 3 quarts (2.8L) in a 1 gallon (3.78L) container
 3 gallons (11.3L) in a 5 gallon (18.9L) container
 Part B: 1 quart (0.94L) and 1 gallon (3.78L)
 1 gallon (3.78L) and 4 gallons (15.1L) mixed
 Weight: 8.47 ± 0.2 lb/gal ; 1.0 Kg/L, mixed

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

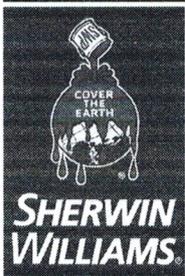
WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.



Protective & Marine Coatings

MACROPOXY® 920 PRE-PRIME PENETRATING EPOXY PRE-PRIMER

PART A B58T101 TRANSPARENT
PART B B58V10 HARDENER

Revised: January 16, 2015

APPLICATION BULLETIN

4.50

SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel

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 (1.0-2.0 mils / 25-50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

Concrete and Masonry

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

Follow the standard methods listed below when applicable:

- ASTM D4258 Standard Practice for Cleaning Concrete.
- ASTM D4259 Standard Practice for Abrading Concrete.
- ASTM D4260 Standard Practice for Etching Concrete.
- ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
- SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
- ICRI No. 310.2R Concrete Surface Preparation.

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 products 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 (4.5°C) minimum, 120°F (49°C) maximum (air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer Not recommended

Clean-Up Reducer #54, R7K54

Airless Spray (see note on next page)

Pressure.....2200 - 2500 psi
Hose..... 1/4" ID
Tip......015"
Filter.....60 mesh

Conventional Spray

GunBinks 95
Tip66
Cap63 PB
Atomization Pressure.....50 psi
Fluid Pressure..... 10 psi

Brush

Brush.....Natural Bristle

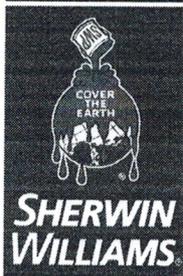
Roller

Cover 1/4"-3/8" woven with solvent resistant core

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

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted D St 3	D St 3	SP 3	-



Protective & Marine Coatings

MACROPOXY® 920 PRE-PRIME PENETRATING EPOXY PRE-PRIMER

PART A B58T101 TRANSPARENT
 PART B B58V10 HARDENER

Revised: January 16, 2015

APPLICATION BULLETIN

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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Use low speed mechanical agitation to mix Part A and Part B separately, then add 1 part by volume of Part B to 3 parts by volume of Part A. Mix the combined parts using low speed power agitation for at least 5 minutes. Mixed material will generate heat and should be handled appropriately, using all material before pot life expiration, and cleaning lines and equipment immediately after use. Higher temperatures will decrease working pot life, while lower temperatures will increase it.

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

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

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	1.5 (40)	2.0 (50)
Dry mils (microns)	1.5 (40)	2.0 (50)
~Coverage sq ft/gal (m ² /L)		
Steel	800 (19.6)	1050 (25.7)
Concrete	400 (9.8)	500 (13.0)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	1600 (39.2)	

Drying Schedule @ 2.0 mils wet (50 microns):

	@ 40°F/4.5°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	18 hours	9.5 hours	7 hours
Tack-free:	32 hours	17 hours	14 hours
To recoat:			
minimum:	36 hours	12 hours	12 hours
maximum:	30 days	30 days	30 days
<i>Drying time is temperature, humidity, and film thickness dependent.</i>			
Pot Life:	8-10 hours	4 hours	3-4 hours
Sweat-in-Time:	None required		

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.

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.

PERFORMANCE TIPS

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.

No reduction of material is recommended as it 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.

For better performance in severely corrosive environments, or over heavily rusted/pitted steel or porous concrete and masonry, two coats may be required.

Roll out any puddles.

Airless spray is acceptable for application; however, the product should be back-rolled to eliminate excessive millage and puddles.

Gloss may vary depending on substrate and film thickness.

Can be used as a metalizing sealer. Consult Technical Bulletin - Sealers for Thermal Spray Metalizing, or your local Sherwin-Williams representative.

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

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



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112.35

Stampede®-1H Hybrid Sealant

PRODUCT DESCRIPTION

Sherwin-Williams STAMPEDE - 1H Hybrid Sealant is a silyl-terminated polyether, single component, moisture cured with superior sealing capabilities. This low modulus, high performance sealant is designed for interior/exterior use on many common building materials where dynamic movement is expected and for UV resistance.

BASIC USES

For use on: metal, wood, vinyl, aluminum, tile, stone, concrete, masonry, cementitious board, stucco and many plastics.

- Low modulus - Up to 70% joint movement
- Faster cure than standard urethanes
- Paintable after full cure
- Low VOC/Isocyanate free
- UV resistance - colorfast and non-yellowing
- Non-gassing

SPECIFICATION COMPLIANCE

Performance Specification for **GreenSure** Branding:
 Product has been tested to meet ASTM Specification C920 (C719 testing for cyclic movement ensures airtight, flexible seal)
 Product has been formulated to meet the most stringent VOC regulations relating to the caulking industry.
 Product packaging contains post-consumer-recycled content.

Meets or exceeds the following specifications:

- ASTM C-920 Type S, Grade NS, Class 35, Use NT
- Federal Specification 17-S-00230 C, Type II, Class A, One Component
- CAN/CGSG-19.13-M87

PRODUCT AVAILABILITY:

White	WL0001430	163-8758	10.3 fl oz
Stone	WL0001448	133-5249	10.3 fl oz
Special Bronze	WL0001449	133-5231	20.0 fl oz
White	WL0001431	163-8766	20.0 fl oz

UNCURED PROPERTIES*

Property	Value	Test Method/Note
Skin Time	40 minutes	TT-S-00230C/ASTM C679
Curing Time @ 77°F	24-36 hours	Varies with relative humidity
Flow, Sag or Slump	0.2 inches	TT-S-00230C/ASTM C639

TYPICAL PROPERTIES* (After 1½ to 2 days cure at 77°F & 50% RH)

Property	Value	Test Method/Note
Hardness (Shore A)	35	ASTM02240
Modulus @ 100%, psi	99	ASTM 0412
Tensile Strength, psi	260	ASTM 0412
Elongation	520%	ASTM 0412
Adhesion in Peel	>25 piw	TT-S-00230C/ASTM C794
Joint Movement	± 35%	TT-S-00230C/ASTM C719
UV Resistance	Very Good	ASTM C793

* Values above are not intended to be used in specification preparation

The physical properties of fully cured STAMPEDE 1H will remain relatively unchanged over a temperature range of -40°F to 210°F.

Stampede™-1H Hybrid Sealant

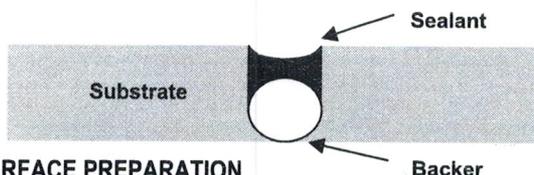
PRECAUTIONS: IF THIS PRODUCT IS USED IN DIRECT CONTACT WITH ANY OTHER SEALANT OR ELASTOMER A COMPATIBILITY TEST MUST BE CONDUCTED, BY PURCHASER OR USER, PRIOR TO ACCEPTANCE. PROSELECT POLYURETHANE SEALANT IS NOT COMPATIBLE WITH OXIME CONTAINING SILICONE SEALANTS.

JOINT DESIGN

Joint design depends on a variety of factors, such as the maximum expansion and contraction of the substrate from thermal change. Recommended maximum joint width should not exceed 1/4" and the maximum joint depth should not exceed 1/2". Minimum joint width should not be less than 1/4".

The sealant depth should be 1/4". For joints 1/4" in width. For joints over 1/4" in width, depth should be 1/2 of the joint width but should not exceed 1/2" in depth. In order to obtain the recommended sealant mass, the joint should be filled with sealant backer rod first, leaving the depth to be filled with sealant.

Desirable backer rod materials are polyethylene or polyethylene non-gassing foamed rod. Do not prime or puncture the closed cell structure of polyethylene rod as bubbles could form and migrate to the surface of the curing sealant. The use of open cell backer rod material minimizes this condition.



SURFACE PREPARATION

Clean all joints by removing any foreign matter or contaminants that would impede adhesion of the sealant to the building material. Porous materials are usually treated by mechanical means and nonporous surfaces by a solvent wipe that is compatible with the building substrate being used. Note: The use of detergent or soap & water is NOT recommended.

Priming: When required, apply a primer. Do NOT allow it to pool or puddle. Install backup materials as required to ensure that the recommended depth is regulated when using the backup material.

DIRECTIONS FOR USE

Cut the nozzle to the desired size and puncture the foil seal. Apply STAMPEDE™-1H in a continuous motion – "pushing" the sealant to get good contact on the building materials being sealed. Immediately tool the uncured sealant. Remove excess sealant while still uncured. If the sealant cured prior to removal, remove any of the unwanted sealant by mechanical means. Masking should be done after priming to avoid wicking primer under the tape on rough surfaces or on surfaces where the tape does not adhere tightly. The masking tape should NOT be allowed to touch the clean surfaces to which sealant is to be applied. Soon after applying the sealant, and before a skin forms, tooling should be completed in one continuous stroke. **Remove masking tape immediately** after tooling is completed.

PAINTING

STAMPEDE-1H can be painted with a good quality acrylic latex paint. Sherwin-Williams DOES NOT recommend the use of alkyd or oil-based paints on any STAMPEDE-1H projects without testing. Cure is dependent on temperature and humidity and may take 3 or more days. Stampede-1H, when applied in a 1/4" x 1/4" bead and backed with a suitable bond-breaker at 77°F and 50% RH, will often be acceptable for painting within 24 hours while cooler and/or drier conditions will lengthen the cure time. Always perform a test area whenever conditions vary from those stated above.

CLEAN UP

Excess sealant and smears should be dry-wiped from all surfaces while still uncured. Remaining uncured material can be removed with Isopropyl Alcohol or soap and water, but each will affect cure. Tool and application equipment may also be cleaned with Isopropyl Alcohol or soap and water. The dried sealant can be removed by cutting with a sharp-edged tool; thin films by abrading.

LIMITATIONS

- Some substrates possess surfaces with challenging bonding issues and can be unpredictable, a Pretest Adhesion Test to Substrate is highly recommended for these types of substrates.
- Not recommended for sealing horizontal joints such as decks, patios or driveways
- Not recommended for use in sealing submerged joints
- Should NOT be applied to surfaces with protective or cosmetic coatings without any prior qualification
- Should NOT be applied to unpredictably absorbent surfaces such as marble
- Where painting is required, use a good quality acrylic latex paint; oil-based or alkyd paint is not recommended without doing a test area first.

SHELF LIFE

When stored at or below 80°F, STAMPEDE™-1H Hybrid Sealant has a shelf life of one year from the date of manufacture.

LIMITED WARRANTY

When used as directed within one year of purchase date, Sherwin-Williams' STAMPEDE-1H Hybrid Sealant is warranted. If this product fails to perform as specified, Sherwin-Williams will furnish an equivalent amount of new polyurethane sealant at no cost or will refund the purchase price upon evidence of purchase. The warranty does not include labor or the cost of labor for the application of this product. This warranty gives you specific legal rights and you may have other rights, which vary from state to state.

Coverage in Lineal Feet One cartridge (10, 10.1, 10.3 fl. oz.)					
		Depth in Inches			
		1/8"	1/4"	3/8"	1/2"
Width in inches	1/8"	99			
	1/4"	49	24		
	3/8"	33	20	11	
	1/2"	24	12	8	6
	5/8"	20	10	7	5
	3/4"	16	8	6	4
	7/8"	14	7	5	4
	1"	12	6	4	3

When using this reference chart, you MUST consider the physical limitations of the product you are using. Not all products can be used in the gap sizes shown.

MATERIAL SAFETY DATA SHEET

STAMPEDE-1H
2008a

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

STAMPEDE™ 1H Hybrid Sealant

White WL0001430 WL0001431
Stone WL0001448
Special Bronze WL0001449
Off White WL0001452
Aluminum Gray WL0001453
Tan WL0001458
Medium Bronze WL0001459

HMIS CODES

Health 1*
Flammability 1
Reactivity 0

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY
101 Prospect Avenue N.W.
Cleveland, OH 44115

EMERGENCY TELEPHONE NO.

(216) 566-2917

DATE OF PREPARATION

12-MAY-08

INFORMATION TELEPHONE NO.

(216) 566-2902

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS	VAPOR PRESSURE
0.1-1	67-56-1	Methanol		
		ACGIH TLV	200 ppm (Skin)	92 mm
		ACGIH TLV	250 ppm (Skin) STEL	
		OSHA PEL	200 ppm (Skin)	
		OSHA PEL	250 ppm (Skin) STEL	
15-40	471-34-1	Calcium Carbonate		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	15 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	
10-30	1317-65-3	Calcium Carbonate		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	15 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	
<5	13463-67-7	Titanium Dioxide		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	10 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	
<1	1333-86-4	Carbon Black		
		ACGIH TLV	3.5 mg/m3	
		OSHA PEL	3.5 mg/m3	

Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

INHALATION of vapor.

EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE

EYES: Irritation.

SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

=====

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

=====

Section 4 -- FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes.
Get medical attention.

SKIN: Wash affected area thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.

INHALATION: If affected, remove from exposure. Restore breathing.
Keep warm and quiet.

INGESTION: Do not induce vomiting.
Get medical attention immediately.

=====

Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT
>200 °F PMCC

LEL	UEL
N.A.	N.A.

FLAMMABILITY CLASSIFICATION

Not Applicable

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

=====

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.
Remove with inert absorbent.

=====

Section 7 -- HANDLING AND STORAGE

STORAGE CATEGORY

DOL Storage Class IIIB

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep container closed when not in use. Do not take internally.
Keep out of the reach of children.

=====
 Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION
 =====

 PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor.

Wash hands after using.

These products may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m³ (total dust), 3 mg/m³ (respirable fraction), OSHA PEL 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction).

Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

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 Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES
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PRODUCT WEIGHT	12.3 lb/gal	1480 g/l
SPECIFIC GRAVITY	1.48	
BOILING POINT	148 °F	64 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	3 %	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)		
<0.25 lb/gal <30 g/l	Less Water and Federally Exempt Solvents	
<0.25 lb/gal <30 g/l	Emitted VOC	

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 Section 10 -- STABILITY AND REACTIVITY

STABILITY -- Stable

CONDITIONS TO AVOID -- None known.

INCOMPATIBILITY -- None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

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 Section 11 -- TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver and urinary systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer, however, such exposure levels are not attainable in the workplace.

 TOXICOLOGY DATA

CAS No.	Ingredient Name					
67-56-1	Methanol	LC50	RAT	4HR	64000	ppm
		LD50	RAT		5630	mg/kg
471-34-1	Calcium Carbonate	LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	
1317-65-3	Calcium Carbonate	LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	
13463-67-7	Titanium Dioxide	LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	
1333-86-4	Carbon Black	LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	

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 Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

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 Section 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from these products is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

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 Section 14 -- TRANSPORT INFORMATION

US Ground (DOT)

Not Regulated for Transportation.

Canada (TDG)

Not Regulated for Transportation.

IMO

Not Regulated for Transportation.

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Section 15 -- REGULATORY INFORMATION
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SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT
67-56-1	Methanol	max 1

CALIFORNIA PROPOSITION 65

WARNING: These products contains chemicals known to the State of California to cause cancer.

TSCA CERTIFICATION

All chemicals in these products are listed, or are exempt from listing, on the TSCA Inventory.

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Section 16 -- OTHER INFORMATION
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These products have been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to these products may substantially alter the composition and hazards of the products. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.