Protective & Marine Coatings

COR-COTE® SC
SEWER-COTE

PART A	B62-450	SERIES
PART B	B62V450	HARDENER

Revised 2/12

PRODUCT INFORMATION

TRM.29

PRODUCT DESCRIPTION

COR-COTE SC is a 100% solids high build epoxy coating designed for the corrosion protection of concrete and steel in municipal and industrial wastewater treatment facilities and general industrial areas containing concentrated acids and alkali.

- 100% solids
- Zero VOC
- Tolerates moisture during cure
- Low odor
- Resistant to hydrogen sulfide gas, carbon dioxide gas and microbiologically induced corrosion by sulfuric acid formation
- Resistant to water and wastewater treatment immersion

PRODUCT CHARACTERISTICS

Finish:	Gloss
Color:	Haze Gray, Tile Red, Blue and Beige
Volume Solids:	100%, calculated, mixed
VOC (calculated):	<100 g/L; .83 lb/gal, mixed
Mix Ratio:	2:1

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**15.0** (375)	**20.0** (500)
Dry mils (microns)	**15.0** (375)	**20.0*** (500)*
~Coverage sq ft/gal (m^2/L)	**80** (2.0)	**100** (2.45)
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**1600** (39.2)	

*Varies with system and application. May be applied up to 60-70 mils (1500-1750 microns). See recommended systems.

Drying Schedule @ 15.0 mils wet (375 microns):

@ 73°F/23°C
50% RH

To touch:	8 hours
To recoat:	
minimum:	10 hours
maximum:	36 hours
Water/Waste water service:	36 hours
To cure:	3 days

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

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

Pot Life (1 gal mass): 40 minutes

Sweat-in-Time: None required

Shelf Life:	18 months Store indoors at 40°F (4.5°C) to 100°F (38°C).
Viscosity (mixed):	28,000-33,000 cps
Reduction:	Not recommended
Clean Up:	Xylene, R2K4

RECOMMENDED USES

Used as a coating and as a binder resin with select aggregate in mortar lining applications.

Protects concrete and steel surfaces in immersion and atmospheric exposure.

Ideally suited for coating, lining, and containment applications in water and waste water facilities including:

- Lift stations
- Steel pipe
- Digesters
- Sluice ways
- Concrete pipe
- Manholes
- Trenches
- Basins
- Wet wells
- Sumps
- Clarifiers
- Influent chambers

PERFORMANCE CHARACTERISTICS

Substrate*: Concrete

Surface Preparation*: ICRI No. 310.2, CSP 3-5

System Tested*:

1 ct. Corobond 100 @ 5.0 mils (125 microns) dft
1 ct. Cor-Cote SC @ 15.0 mils (375 microns) dft

*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance (coating)	ASTM D4060, 1000 g, 1000 cycles, CS-17 wheel	71 mg loss
Adhesion	ASTM D4541	Steel: 2,221 psi (w/ Copoxy Shop Primer)
Adhesion	ASTM D7234	Concrete: 2,500 psi
Coefficient of Linear Thermal Expansion	ASTM C531 (in/in/°F)	Coating - 2.30 x 10^{-4}; Mortar - 9.38 x 10^{-5}
Durometer Hardness (coating)	ASTM D2240, avg 12	Shore D = 60
Flexural Modulus (coating)	ASTM D790	1.01 x 10^5
Modulus of Elasticity (mortar)	ASTM C580	3.49 x 10^5
Moisture Absorption (mortar)	ASTM C413, avg 16	0.33%
Tensile Elongation (coating)	ASTM D638, strain	11.2%

Epoxy coatings may darken or yellow following application and curing.

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Concrete, medium film coating:			
2 cts.	Cor-Cote SC	15.0-20.0	(375-500)
Concrete, medium film coating (with bug hole filler):			
1 ct.	Steel-Seam FT910 as required for filling voids and bugholes on concrete		
2 cts.	Cor-Cote SC	15.0-20.0	(375-500)
Concrete, medium film coating (with conductive underlayment):			
1 ct.	Corobond Conductive Epoxy Primer for conductive underlayment and to fill bugholes on concrete	10.0-15.0	(250-375)
2 cts.	Cor-Cote SC	15.0-20.0	(375-500)
Concrete (lining with optional Primer):			
1 ct.	Corobond 100 Epoxy Primer/Sealer	4.0-6.0	(100-150)
1-2 cts.	Cor-Cote SC	60.0-70.0	(1500-1750)
Concrete, mortar (lining and resurfacing):			
1 ct.	Cor-Cote SC with 28 lbs Type SC Aggregate per 1.5 gallons1/8" dft yields 32 square feet		
Concrete, mortar (with optional primer and topcoat):			
1 ct.	Corobond 100 Epoxy Primer/Sealer	4.0-6.0	(100-150)
1 ct.	Cor-Cote SC with 28 lbs Type SC Aggregate per 1.5 gallons 1/8" dft yields ~32 square feet		
1 ct.	Cor-Cote SC	15.0-20.0	(375-500)
Steel, medium film coating:			
1 ct.	Copoxy Shop Primer (as required for hold primer)	3.0-5.0	(75-150)
1 ct.	Steel-Seam FT910 as required for filling pits and transitioning sharp edges, weld seams, etc. on steel		
2 cts.	Cor-Cote SC	15.0-20.0	(375-500)

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

DISCLAIMER

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

SURFACE PREPARATION

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

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel:
- Atmospheric: SSPC-SP6/NACE 3, 2 mil (50 micron) profile
- Immersion: SSPC-SP10/NACE 2, 2-3 mil (50-75 micron) profile

Concrete & Masonry:
- Atmospheric: SSPC-SP13/NACE 6
- Immersion: SSPC-SP13/NACE 6-4.3.1 or 4.3.2 ICRI Technical Guideline No. 310.2 CSP 3-5

Surface Preparation Standards

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

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature: 50°F (10°C) minimum, 90°F (32°C) maximum (air, surface, 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: 2 gallons (7.5L) in a 3 gallon (11.3L) container and 5 gallons (18.9L)
- Part B: 1 gallon (3.78L) and 5 gallons (18.9L)

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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

WARRANTY

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

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APPLICATION BULLETIN

TRM.29

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 (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. Prime any bare steel the same day as it is cleaned or before flash rusting occurs. Use Steel-Seam FT910 to fill pits and transition sharp edges, weld seams, etc. on steel.

Iron & Steel (atmospheric service)
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs. Use Steel-Seam FT910 to fill pits and transition sharp edges, weld seams, etc. on steel.

Concrete and Masonry
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2, CSP 3-5. 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. May be applied to an SSD (Saturated Surface Dry) substrate.

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. 310.2 Concrete Surface Preparation.

Concrete, Immersion Service:
For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2, CSP 3-5.

Surface Preparation Standards

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

APPLICATION CONDITIONS

Temperature:	50°F (10°C) minimum, 90°F (32°C) maximum (air, surface, 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.

Reduction .....Not Recommended

Cleanup .....Xylene, R2K4

Plural Component Spray
Pump Ratio .....Graco Xtreme mix 360 (68:1)
Gun .....Graco XTR
Fluid Hose.....3/8" to 1/2" ID
Tip Orifice.....021" to .025"
Fan Width at 12" .....10"
Fluid Pressure.....2,000-3600 psi
Filter Screen.....60 mesh
Transfer Pump .....5:1 ratio each side
Static Mixing Tube.....1/2" ID, with 32 turns

Brush
Brush.....Natural bristle for applications in small areas

Roller
Cover .....3/8" nap for coatings

Trowel
Flat trowel .....For mortar applications

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

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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Optional Primers: Apply optional primer as indicated, following application procedures of the products listed in Recommended systems.

Mixing Instructions:
Premix individual components separately, using a low-speed drill and Jiffy Blade model ES mixer. Make certain no pigment remains on the bottom or sides of the can. Combine one part by volume of Part B to two parts by volume of Part A. Mix with low speed drill and Jiffy Blade model ES mixer for three minutes and until uniform (unless using plural component equipment).

For coatings applications:
Combine parts A and B as instructed above. To insure that no unmixed materials remain on the sides and bottom of the cans after mixing, visually observe the container by pouring the material into a separate container. Marbeled or streaky appearance is an indication of improper mixing. Apply via brush, roller or spray to the film thickness and spreading rate indicated below.

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**15.0** (375)	**20.0** (500)
Dry mils (microns)	**15.0** (375)	**20.0*** (500)*
~Coverage sq ft/gal (m^2/L)	**80** (2.0)	**100** (2.45)
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**1600** (39.2)	

*Varies with system and application. May be applied up to 60-70 mils (1500-1750 microns). See recommended systems.

For mortar applications: (lining and resurfacing)
Combine and mix Parts A and B as instructed above. Slowly add Type SC aggregate at 25 to 30 pounds per 1.5 gallon (5.7L) unit to the mixed resin in a mortar mixer. Blend materials until no lumps remain and the aggregate is uniformly mixed with the resin. Apply via hand trowel to desired thickness of 1/16" to 1/8". Use of a clean water dampened short nap mohair roller to smooth and seal the surface as a final finish will provide a pinhole free system. allow system to cure 24 hours before returning to service. Apply optional topcoats as indicated, following application procedures of the products listed in Recommended systems.

Recommended Spreading Rate per coat as a mortar:*

Wet mils:	1/16" - 1/8"
Dry mils:	1/16" - 1/8"
Coverage:	~32 - 64 sq ft/1.5gal/28lb unit approximate

*Varies with system and application. See recommended systems.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Xylene, R2K4. Clean tools immediately after use with Xylene, R2K4. Follow manufacturer's safety recommendations when using any solvent.

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APPLICATION GUIDELINES

Drying Schedule @ 15.0 mils wet (375 microns):

	@ 73°F/23°C *50% RH*
To touch:	8 hours
To recoat:	
minimum:	10 hours
maximum:	36 hours
Water/Waste water service:	36 hours
To cure:	3 days

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

Pot Life (1 gal mass): 40 minutes
Sweat-in-Time: None required

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

PERFORMANCE TIPS

Read and understand the individual Systems Installation Procedures for thin film linings, medium film linings, laminate linings, self-leveling, mortars, mortar laminates and heavy duty mortar laminates.

For concrete, always perform Calcium Chloride test as per ASTM F1869. Do not proceed with MVE >3 lbs.

For steel, stripe coat all chine, welds, bolted connections, and sharp angles to prevent early failure in these areas.

Pot life of this material is moderately short. Working time can be extended by mixing small batches and by getting material out of mixing containers and on to the working surface in desired film thickness as quickly as possible.

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.

For Immersion Service: (if required) Holiday test in accordance with ASTM D5162 for steel, or ASTM D4787 for concrete.

Use of Corobond Conductive Epoxy Primer on concrete is recommended in order to provide a uniform conductive underlayment. Repair holidays found prior to application of final coat

Consult your Sherwin-Williams representative for specific application and performance recommendations.

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

SAFETY PRECAUTIONS

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