RUST-OLEUM® HIGH PERFORMANCE®

C9578 SYSTEM COAL TAR EPOXY

DESCRIPTION AND USES

A two-component, high solids polyamide converted epoxy blended with a refined coal tar pitch. Meets Corps of Engineers Specs C-200, C-200A, Steel Tank Institute Corrosion Control System STI-P3, AWWA Spec C210-84, and SSPC-Paint 16.

Designed for use on steel or concrete surfaces in severe industrial or marine environments. Provides outstanding resistance to abrasion, strong chemicals and immersion in fresh or salt water. Not for use in potable water tanks; may impart an odor to liquids. Ideal for use on a variety of surfaces exposed to extremely corrosive environments. Not recommended for exposure to strong acids or immersion in strong solvents.

PRODUCTS

1.25-Gallon Kit

C9578402 Coal Tar Epoxy base component (Full gallon)
C9502504 Coal Tar Epoxy activator (Full quart)

5-Gallon Kit

C9578380 Coal Tar Epoxy base component (Partial fill pail)
C9502402 Coal Tar Epoxy activator (Full gallon)

COMPANION PRODUCTS

RECOMMENDED PRIMERS

C9578 is a self-priming product.

COMPATIBLE PRIMERS

HS9369 or HS9381 Epoxy primers.

PRODUCT APPLICATION

SURFACE PREPARATION

ALL SURFACES: Remove all dirt, grease, oil, salt and chemical contaminants by washing the surface with Pure Strength® Cleaner/Degreaser item #3599402, commercial detergent or other suitable cleaner. Mold and mildew areas must be cleaned with a chlorinated cleaner or bleach solution. Rinse thoroughly with fresh water and allow to fully dry. All surfaces must be dry at time of application.

STEEL: For immersion service, abrasive blasting to a minimum Near White Grade (SSPC-SP-10, NACE 2) with a 2-3 mil (50-75µ) surface profile is recommended for optimal performance. All weld spatter must be removed along wield seams, rough welds should be ground smooth, and all sharp edges should be ground to a smooth radius.

For non-immersion service, abrasive blasting to a minimum Commercial Grade (SSPC-SP-6, NACE 3) with a 2-3 mil (50-75µ) surface profile is recommended for optimal performance. Abrasive blast cleaned steel requires two coats.

CONCRETE (IMMERSION): Hand or power tool clean to remove all loose or unsound concrete, masonry, or previous coating. Very dense, non-porous concrete should be acid etched or abrasive blasted to remove the laitance layer and create a surface profile of 1.5-3 mils. Allow new concrete to cure for 30 days before coating.

Form: 1048990
Rev.: 061311

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PRODUCT APPLICATION (cont.)

APPLICATION

Apply only when air and surface temperatures are between 50-100°F (10-38°C) and surface is at least 5°F above dew point. For immersion service and severe environments, a total dry film thickness of 16-20 mils is required. It is strongly recommended this be achieved as a two-coat application of 8-10 mils per coat. Conventional or airless spray preferred.

VENTILATION

When coatings are applied in a confined space or the interior of tanks or vessels, ventilation must be provided to prevent the accumulation of solvent. If the solvent level increases until the air is saturated it can interfere with proper cure of the coating and increase the risk of solvent entrapment in the dried film. Solvent entrapment can cause premature coating failure.

When coating the interior of tanks or vessels, forced ventilation should be employed to provide a minimum air flow rate of 300 cfm of fresh air per gallon of coating applied per hour. So, if the coating is being applied at a rate of 5 gallons per hour, then the air flow should be at least 1,500 cfm.

NOTE: This air flow rate is only to ensure proper cure of the coating and is not a recommendation for worker safety. Breathing air for the workers should be supplied by a separate forced air system direct to each worker in the vessel. Consult the Material Safety Data Sheet for the coating being applied and with facility rules and regulations for entering and working within a confined space.

The forced ventilation should be maintained for 48 hours after the final coat has been applied. If the coating is going to be used in immersion, then an addition curing time of 5 days, but without forced ventilation, may need to be observed before the tank is filled. Consult with the Technical Data Sheet for the coating used.

The size and configuration of a tank or vessel along with the number and positions of manways will influence the arrangement of fan or blowers for properly ventilating the tank. Be sure fan positioning provides complete air movement in the tank or vessel. Explosion proof fans or blowers must be used if they are to be placed inside the tank or vessel.

EQUIPMENT RECOMMENDATIONS

BRUSH/ROLLER: For small touch-up or striping of weld seams.

CONVENTIONAL SPRAY: Pressure pot with dual regulator, minimum 3/8 inch I.D. fluid hose not greater than 50 feet in length. Use a 0.086 inch I.D. fluid tip with the appropriate air cap. Thin as needed up to 16% with 160 Thinner for all air atomized spray applications.

PRODUCT APPLICATION (cont.)

AIRLESS SPRAY:

Pump Ratio	Pump Output	Fluid Hose
30:1	3.0 GPM	1/2 inch I.D.
Fluid Pressure	**Fluid Tip**	**Filter Mesh**
2,100-2,500	0.023-0.035	30

THINNING

Normally not necessary. If desired, thin as needed up to 16% with 160 Thinner.

MIXING

Power mix base component before adding activator, then combine at a 4:1 ratio by volume and power mix together. Thoroughly mix for at least two minutes. Note: both components will thicken in viscosity when cold. The material should be warmed to room temperature before mixing for best results.

CLEAN UP

160 Thinner or MEK

PERFORMANCE CHARACTERISTICS

TABER ABRASION

METHOD: ASTM D4060, CS-17 wheels, 1,000 gram load, 1,000 cycles

TEST SAMPLE: Blast cleaned steel, 2 coats of material

RESULT: 130 mg loss

PULL OFF ADHESION

METHOD: ASTM D4541

TEST SAMPLE: Blast cleaned steel, 2 coats of material

RESULT: >1,400 psi (pneumatic)

IMPACT RESISTANCE (direct)

METHOD: ASTM D2794, Gardner Impactor (1/2 inch diameter)

TEST SAMPLE: Blast cleaned steel, 2 coats of material

RESULT: 100 in.–lbs.

SALT FOG EXPOSURE

METHOD: ASTM B117, 2,000 hour exposure

TEST SAMPLE: Blast cleaned steel, 2 coats of material

RESULT: No blistering, rusting or delamination. No measurable undercutting at scribe.

For chemical and corrosion resistance,see the Rust-Oleum Industrial Brands Catalog (Form #206275).

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PHYSICAL PROPERTIES

		COAL TAR EPOXY
Resin Type		Polyamide converted epoxy blended with refined coal tar
Solvents		Xylene, methanol
Weight*	**Per Gallon**	10.2-11.0 lbs.
	Per Liter	1.2-1.3 kg.
Solids*	**By Weight**	75-79%
	By Volume	75-77%
Volatile Organic Compounds*		<250 g/l (2.1 lbs./gal.), as supplied
Recommended Dry Film Thickness (DFT) Per Coat		8-10 mils (200-250µ), minimum
Wet Film to Achieve DFT		10.5-13.5 mils (262.5-337.5µ)
Theoretical Coverage at 1 mil DFT (25µ)		1,203-1,235 sq. ft./gal. (29.6-30.4 m^2/l)
Practical Coverage at Recommended DFT (assumes 15% material loss)		100-130 sq. ft./gal. (2.5-3.2 m^2/l)
Mixing Ratio		4:1 base to activator by volume
Induction Period		None
Pot Life		2 hours @ 80°F; 1 hour @ 100°F
Dry Times at 70-80°F (21-27°C) and 50% rel. hum.	**Tack-free**	3-4 hours
	Handle	18-36 hours
	Recoat	16-25 hours (If recoat time exceeds 48 hours, brush blast surface of previous coating to create a surface profile)
Force Cure		2 hours at 225°F (107°C)
Dry Heat Resistance		140°F (60°C)
Maximum Immersion Temperature		120°F (49°C)
Shelf Life		12 months, both components (do not store in temperature above 135°F)
Safety Information	**Flash Point**	86°F (30°C), Setaflash
	Contains	No lead has been deliberately added
	Warning!	**FLAMMABLE LIQUID AND VAPOR. VAPOR HARMFUL. MAY CAUSE CANCER. HARMFUL IF INHALED. CAUSES EYE AND SKIN IRRITATION. POISON. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION. IN CONFINED AREAS WORKERS MUST WEAR FRESH AIRLINE REPSIRATORS. USERS SHOULD WEAR GLOVES AND PROTECTIVE CLOTHING. FOR INDUSTRIAL OR COMMERCIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. SEE THE PRODUCT MATERIAL SAFETY DATA SHEET (MSDS) AND LABEL WARNINGS FOR ADDITIONAL SAFETY INFORMATION.**

* Activated material

Calculated values are shown and may vary slightly from the actual manufactured material.

RUST-OLEUM®
INDUSTRIAL BRANDS

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Form: 1048990
Rev.: 061311