

TECHNICAL DATA

9200 SYSTEM LOW TEMPERATURE EPOXY

DESCRIPTION AND USES

Rust-Oleum[®] 9200 System is a very versatile, low VOC and low HAPS, two component phenalkamine epoxy. It has excellent wetting characteristics, may be applied at low temperatures, is suitable for a variety of substrates and can tolerate damp surfaces. It dries fast and is compatible with many Rust-Oleum topcoats. The 9200 System is also suitable for water immersion service and is certified for use in potable water storage tanks that are of 3,000 gallon capacity or greater.

FEATURES

- Low temperature cure (20°F) for non-immersion service
- Self priming DTM high build epoxy
- Excellent corrosion protection
- Excellent surface wetting
- Good early moisture resistance
- Fast dry
- Extended recoat window for atmospheric exposures
- Low VOC and low HAPs content
- Certified for use in potable water storage tanks with 3,000 gallon minimum capacity in accordance with ANSI/NSF Std. 61.

PRODUCTS

1-Gallon	5-Gallon* Description	
-	316834	Gray
-	316835	White
-	318207	Blue
-	320261	Safety Yellow [†]
316836		Activator

Base and Activator components are ordered separately.

* The 5-gallon pails are short filled to allow for the addition of one gallon of Activator. The yield is five gallons of activated material.

[†] The 320261 Safety Yellow is not certified for potable water service.

COMPATIBLE TOPCOATS

Note: The following coatings are compatible with the 9200 System Low Temperature Epoxy, however they are not low temperature curing products. See the Technical Data Sheet for specific application temperature range. Also, these topcoats are not suitable for use in potable water immersion.

V9100 System Low VOC DTM Epoxy Mastic

- 9700 System 250 VOC Acrylic Polyester Urethane
- 3300 System Acrylic Aliphatic Urethane
- 3700 System DTM Acrylic Enamel
- 9100 System DTM Epoxy Mastic (VOC >250 g/l)
- 9800 System DTM Urethane Mastic (VOC >250 g/l)

PRODUCT APPLICATION

SURFACE PREPARATION

ALL SURFACES: Remove all dirt, grease, oil, salt and chemical contaminants by washing the surface with Krud Kutter[®] Cleaner Degreaser, 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 dry if possible. Best results are obtained if the surface is completely dry.

STEEL: Hand tool (SSPC-SP-2) or power tool (SSPC-SP-3) clean to remove loose rust, scale, and deteriorated previous coatings to obtain a sound rusted surface. For optimum corrosion resistance, abrasive blast to commercial grade SSPC-SP-6, with a blast profile of $1\frac{1}{2}$ -3 mils (40-75 µ).

STEEL (IMMERSION): Abrasive blast clean to a minimum SSPC-SP-10 Near-White Grade (NACE 2) and achieve a surface profile of 1.5-3.0 mils. All weld spatter must be removed and rough welds should be ground smooth. Sharp edges should be ground to a smooth radius.

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 1.5–3.0 mils. Allow new concrete to cure for 30 days before coating.

MIXING

Power mix base component before adding activator, then combine at a 4:1 base to activator ratio by volume and power mix together. If the 316836 Activator is near the end of shelf life, it may require additional scraping of the sides of the container during mixing to ensure all material is completely remixed.

APPLICATION

Apply only when the air temperature is between $20-100^{\circ}F$ (-7- $38^{\circ}C$) and the surface temperature does not exceed $120^{\circ}F$ (49°C). The relative humidity should not be greater than 85%. Be aware of possible ice formation on the substrate if the surface or air temperatures are below $32^{\circ}F$ (0°C).

A minimum of two coats, each within the recommended dry film thickness range, is required for water immersion service. Alternating colors are suggested.

Best results are achieved by airless or air atomized spray. Application by brush and roller is acceptable; however multiple coats may be needed to obtain the desired appearance, recommended dry film thickness, and adequate hiding. Avoid excessive re-brushing or re-rolling, and tie-in within 10 minutes at 75°F (24°C).

Brush and roller is the preferred method of application on damp substrates.

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PRODUCT APPLICATION (cont.)

EQUIPMENT RECOMMENDATIONS

BRUSH: Use a good quality natural or solvent compatible synthetic bristle brush. Avoid excessive brushing.

ROLLER: Use a good quality short nap synthetic roller cover with a phenolic core.

AIR-ATOMIZED SPRAY: (pressure pot): Use a pressure pot system equipped with dual regulators, and a ³/₄ inch ID minimum fluid hose. The gun should use a 0.070 inch fluid tip with the appropriate air cap.

AIRLESS SPRAY:

Pump Ratio	Pump Output	Fluid Hose
30:1	2.5 GPM	³∕₅" ID
Fluid Pressure	Fluid Tip	Filter Mesh
2,000-2,500 psi	0.017-0.021	60

Teflon packages are recommended and are available from the pump manufacturer.

DRY AND RECOAT TIMES

Dry times based on 75°F and 50% relative humidity. The curing schedule listed below is to be used as a guideline for non-immersion applications. The maximum recoat time is 180 days.

If the recoat time is extended, inspect for surface contamination prior to recoating. Re-wash the surface if necessary.

If the maximum recoat time has been exceeded, the surface must be abraded by sweep blasting or sanding prior to the application of additional coats.

CURING SCHEDULE (FOR NON-IMMERSION SERVICE)

Surface	Dry to	Dry to	Dry to
Temperature	Touch	Handle	Recoat
20°F (-7°C)	4 hours	36 hours	24 hours
35°F (2°C)	2 hours	18 hours	2 hours
50°F (10°C)	1 hour	11 hours	1 hour
301 (10 0)	1 Hour	TTHOUIS	1 noui
75%5 (04%0)	20 minutes	2 h a	
75°F (24°C)	30 minutes	3 nours	45 minutes
90°F (32°C)	15 minutes	2 hours	30 minutes

CURE FOR IMMERSION SERVICE

Allow the final coat to cure for 7 days at 75°F (24°C) or 3 days a 90°F (32°C)*

*NOTE: For Potable Water

For potable water immersion service, the coating must cure for 7 days at $75^{\circ}F$ (24°C).

PRODUCT APPLICATION (cont.)

THINNING

Thin only with Methyl Ethyl Ketone (MEK) and do not exceed 10% by volume per gallon in order to comply with Standard 61 Certification.

For Low VOC non-immersion application thin only with Rust-Oleum Low VOC Thinner 315512 and do not exceed 10% by volume per gallon.

CLEAN-UP

190 Thinner or MEK. In case of spillage, absorb and dispose of in accordance with local applicable regulations.



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PHYSICAL PROPERTIES

		LOW TEMPERATURE EPOXY	
Resin Type		Phenalkamine Epoxy	
Pigment Type		Titanium Dioxide, Microcrystalline Silica	
Solvents		Xylene and other Aromatic Hydrocarbons	
Weight*	Per Gallon	14.0 lbs.	
	Per Liter	1.7 kg	
Solids*	By Weight	80-84%	
	By Volume	63-67%	
Volatile Organic Compounds*		<250 g/l (2.1 lbs./gal.)	
Recommended Dry Film Thickness (DFT) Per Coat		4.0-6.0 mils (100-150μ)	
Wet Film to Achieve DFT		6-9.5 mils (150-238µ)	
Theoretical Coverage at 1 mil DFT (25μ)		1,010-1,075 sq.ft./gal. (24.8-26.4 m²/l)	
Practical Coverage at Recommended DFT (assumes 15% material loss)		140-225 sq.ft./gal. (3.4-5.5 m ² /l)	
Mixing Ratio		4:1 base to activator by volume (316836 Activator)	
Induction Period		None required	
Pot Life		3 hours @ 70º F (21ºC) and 50% RH	
		2 hours @ 90º F (32ºC) and 50% RH	
Dry Times at 75°F (24°C) and 50% Relative Humidity	Touch	30 minutes	
	Handle	3 hours	
	Recoat	45 minutes - 180 days (max. 30 days for immersion service)	
	Immersion	7 days at 75°F (24°C) ; 3 days at temperatures above 90°F(32°C) 7 days at 75°F (24°C) is required for potable water immersion service	
Dry Heat Resistance		Continuous 180°F (82°C) intermittent 220°F (104°C); color shift at temperatures greater than 200°F (93°C), but it will not affect film integrity	
Shelf Life		2 years	
Safety Information		For additional information, see SDS	

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

*Activated material.

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