

RUST-OLEUM®

HIGH PERFORMANCE 9700 SYSTEM 250 VOC POLYESTER URETHANE

DESCRIPTION AND USES

The 9700 System is a two component aliphatic acrylic polyurethane finish. These finishes are ideal for interior or exterior use on properly primed surfaces in moderate to severe industrial environments.

This highly durable, high gloss enamel is designed for use in an aggressive environment. The coating has very good chemical resistance and excellent color and gloss retention making it ideal for outdoor equipment.

This coating complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities.

PRODUCTS

FINISHES

SKU (1 Gallon)	DESCRIPTION
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207273	Crystal Clear
207274	Safety Blue
207277	Gloss Black
207278	Silver Gray
207279	Gloss White
207243	Dark Yellow
207243	Activator

TINT BASES

SKU (1 Gallon)	DESCRIPTION
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207247	Masstone Tint Base
207271	Deep Tint Base
207272	Light Tint Base

COMPANION PRODUCT

SKU (1 Gallon)	DESCRIPTION
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202548	Urethane Accelerator
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RECOMMENDED PRIMERS

V9100 System Low VOC DTM Epoxy Mastic

PACKAGING

Standard premix colors are packaged in short filled gallon containers to allow for the addition of activator. The activator is packaged in a short filled, cone top, quart container. The combined base and activator components will yield one full gallon.

Tint bases are packaged in short filled gallon containers to allow for the addition of colorant and activator. The following tint bases are available.

Masstone Base – A clear tint base that can accept up to 16 ounces of colorant per gallon.

PACKAGING (cont.)

Deep Base – A white tint base that contains 0.8 pounds of titanium dioxide per gallon. It can accept up to 12 ounces of colorant per gallon.

Light Base – A white tint base that contains 1.8 pounds of titanium dioxide per gallon. It can accept up to 8 ounces of colorant per gallon. Activated tinted colors which do not use the maximum amount of colorant will yield less than a full gallon of activated material.

PRODUCT APPLICATION

SURFACE PREPARATION

ALL SURFACES: If excessive time has elapsed since the primer was applied, remove all dirt, grease, oil, salt and chemical contaminants by washing the surface with Krud Kutter® Original Cleaner Degreaser, commercial detergent or other suitable cleaner. Mold and mildew 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: Intended for primed steel only. Use Rust-Oleum V9100 System Low VOC DTM Epoxy Mastic as a prime coat. See primer labels and technical data sheet for correct surface preparation and application procedures.

PREVIOUSLY COATED: Previously coated surfaces must be sound and in good condition. Smooth, hard, or glossy finishes should be scarified by sanding to create a surface profile. The 9700 System finish is compatible with most coatings, but a test patch is suggested.

GALVANIZED METAL: New galvanized steel must be free of grease, oil, or wax surface treatments prior to coating. Solvent wiping may be required.

MIXING

Premix base component before adding activator, then combine at a 4:1 ratio by volume and mix together.

APPLICATION

Apply only when air and surface temperatures are between 40-100°F (5-38°C) and surface temperature is at least 5°F (3°C) above the dew point.

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EQUIPMENT RECOMMENDATIONS

BRUSH: Use a good quality natural or synthetic bristle brush.

ROLLER: Use a good quality lamb's wool or synthetic fiber roller cover recommended.

AIR-ATOMIZED SPRAY

Method	Fluid Tip	Fluid Delivery	Atomized Pressure
Pressure	0.055-0.070	16 oz./min.	40-60 psi
Siphon	0.055-0.070	--	40-60 psi
HVLP	0.043-0.070	10-12 oz./min	10 psi (at tip)

AIRLESS SPRAY

Fluid Pressure	Fluid Tip	Filter Mesh
2,200-3,100 psi	0.013-0.017	100

THINNING

Not Required

CLEAN-UP

Xylene or MEK

PERFORMANCE CHARACTERISTICS

SYSTEM TESTED

Primer: Rust-Oleum Industrial DTM Epoxy Mastic with the #205015 Low VOC Standard Activator

Topcoat: Rust-Oleum Industrial Low VOC Urethane

PENCIL HARDNESS

METHOD: ASTM D3363

RESULT: F

CONICAL FLEXIBILITY

METHOD: ASTM D522

RESULT: >33%

CYCLIC PROHESION

Rating 1-10, 10=best

METHOD: ASTM D5894, 3,300 hours

RESULT: 10 per ASTM D714 for blistering

Result: 10 per ASTM D1654 for corrosion

RESULT: 10 per ASTM D610 for rusting

IMPACT RESISTANCE (direct/reverse)

METHOD: ASTM D2794

RESULT: >160/>160 in.-lbs.

TABER ABRASION

METHOD: ASTM D4060, CS-17 wheels, 1,000 gram load, 1000 cycles

RESULT: 60 mg loss

GLOSS (60°)

METHOD: ASTM D523


RESULT: 95% (color-white)

ACCELERATED WEATHERING (% gloss retention)

METHOD: ASTM D4587, QUV Type A bulb, 2,100 hours

RESULT: 100% gloss retention (color-white)

Refer to the Rust-Oleum Industrial Brands Catalog (Form #275585 for chemical and corrosion resistance.

URETHANE	TECHNICAL DATA	RO-70
	HIGH PERFORMANCE 9700 SYSTEM 250 VOC POLYESTER URETHANE	

PHYSICAL PROPERTIES

		PREMIX COLORS	TINT BASES
Resin Type		Acrylic Isocyanate converted Aliphatic Polyester Urethane (ASTM Type V)	
Pigment Type		Varies with color	
Solvents		Xylene, Esters and Ketones	
Weight*	Per Gallon	8.5-10.8 lbs.	8.6-10.0 lbs.
	Per Liter	1.0-1.3 kg	1.0-1.2 kg
Solids*	By Weight	56.5-73.5%	64.1-70.6%
	By Volume	52.6-62.8%	60.3-64.0%
Volatile Organic Compounds*		<250 g/l (2.08 lbs./gal.)	
Recommended Dry Film (DFT) Per Coat		1.0-2.0 mils (25-50μ)	1.0-2.0 mils (25-50μ)
Wet Film to Achieve DFT (unthinned material)		2.0-4.0 mils (50-100μ)	2.0-4.0 mils (50-100μ)
Theoretical Coverage at 1 mil DFT (25μ)		845-1,010 sq.ft./gal. (20.8-24.8 m ² /l)	970-1,025 sq.ft./gal. (23.9-25.2 m ² /l)
Practical Coverage at Recommended DFT (assumes 15% material loss)		360-860 sq. ft./gal. (6.4-13.8 m ² /l)	410-870 sq.ft./gal. (10.1-21.4 m ² /l)
Mixing Ratio		4:1 Base to Activator (by volume)	4:1 Base to Activator (by volume)
Induction Period		None required	None required
Pot Life @ 70-80°F (21-27°C) and 50% Relative Humidity		3-4 hours	3-4 hours
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	Tack-free	5-7 hours	5-7 hours
	Handle	7-15 hours	7-15 hours
	Recoat	16-24 hours	16-24 hours
Force Cure		1 hour at 120°F (49°C) after 10 minute flash off	
Dry Heat Resistance		300°F (149°C)	
Shelf Life		3 years for base components; 1 year for activator (open activator should be used within 2 weeks)	
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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