

RUST-OLEUM®

9700 SYSTEM 250 VOC ACRYLIC 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.

PRODUCTS

FINISHES

1-Gallon	Description
207273	Crystal Clear
207274	Safety Blue
207277	Gloss Black
207278	Silver Gray
207279	Gloss White
207280	Dark Yellow
207243	Activator

TINT BASES

2207247	Masstone Tint Base
207271	Deep Tint Base
207272	Light Tint Base

COMPANION PRODUCTS

202548	Urethane Accelerator
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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. **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.

COMPANION PRODUCTS

RECOMMENDED PRIMERS

V9100 System Low VOC DTM Epoxy Mastic

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 Pure Strength® Cleaner/Degreaser, item #3599402, 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. **WARNING!** If you scrape, sand or remove old paint from any surface, you may release lead paint dust. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a NIOSH-approved respirator to control lead exposure. Carefully clean up with a wet mop or HEPA vacuum. For additional information contact the U.S. EPA/Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

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

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.



TECHNICAL DATA

9700 SYSTEM 250 VOC ACRYLIC POLYESTER URETHANE

EQUIPMENT RECOMMENDATIONS

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

ROLLER: Use a quality 3/8" nap lamb's wool or synthetic fiber roller cover.

AIR-ATOMIZED SPRAY:

Method	Fluid Tip	Fluid Delivery	Atom. 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 the tip

AIRLESS SPRAY:

Fluid Pressure	Fluid Tip	Filter Mesh
2200-3100 psi	0.013-0.017	100

THINNING

Not required.

MIXING

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

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%

PROHESION

Rating 1-10, 10=best

Method: ASTM D5894, 3300 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, 1000 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, 2100 Hours

RESULT: 100% (color-white)

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



TECHNICAL DATA

9700 SYSTEM 250 VOC ACRYLIC POLYESTER URETHANE

PHYSICAL PROPERTIES

		PREMIX COLORS	TINTBASES
Resin Type		Acrylic isocyanate converted aliphatic polyester urethane (ASTM Type V)	Acrylic isocyanate converted aliphatic polyester urethane (ASTM Type V)
Pigment Type		Varies with color	Varies with color
Solvents		MAK, methyl acetate, butyl acetate	MAK, methyl acetate, butyl acetate
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.)	<250 g/l (2.08 lbs./gal.)
Recommended Dry Film (DFT) Per Coat		1-2 mils (25-50µ)	1-2 mils (25-50µ)
Wet Film to Achieve DFT		2-4 mils (50-100µ)	2-4 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. (8.9-21.2 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 @ 77°F & 50% RH		3-4 hours	3-4 hours
Dry Times at 77°F (25°C) and 50% Relative Humidity	Tack-free	2-4 hours	2-4 hours
	Handle	3-6 hours	3-6 hours
	Recoat	16-24 hours	16-24 hours
Force Cure		1 hour at 120°F (49°C) after 10 minute flash off	1 hour at 120°F (49°C) after 10 minute flash off
Dry Heat Resistance		300°F (149°C)	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	Flash Point	20°F (-6.6°C) Setaflash	20°F (-6.6°C) Setaflash
	Contains	Lead-free	Lead-free
	Warning!	FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED. MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. CAUSES NOSE, THROAT, EYE AND SKIN IRRITATION. CONTAINS ALIPHATIC POLYISOCYANATE; METHYL AMYL KETONE AND METHYL ACETATE SOLVENTS. REFER TO MATERIAL SAFETY DATA SHEET (MSDS) AND LABEL WARNINGS FOR ADDITIONAL INFORMATION.	

*Activated material.

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

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