

RUST-OLEUM®

9800 SYSTEM DTM URETHANE MASTIC

DESCRIPTION AND USES

The 9800 System DTM Urethane Mastic is a two component, high solids, high build, direct to metal, aliphatic acrylic polyurethane. This urethane mastic coating is designed to provide corrosion protection of steel in moderate to severe environments. It can be used directly on sound rusted steel with minimum surface preparation. It can also be used on clean steel, galvanized metal, concrete and previously coated surfaces with proper surface preparation.

It is suitable for tanks, towers, equipment, metal buildings, or chemical environments.

PRODUCTS

FINISHES

1-Gallon	5-Gallon	Description
9815419	—	Alumi-NON®
9865419	—	Regal Red
9879419	—	Black
9871419	—	Dunes Tan
9844419	—	Safety Yellow
9892419	9892383	White
9882419	—	Silver Gray
9825419	—	Safety Blue
9845419	—	Equipment Yellow
9886419	—	Navy Gray
9801501	9801419	Activator

TINT BASES

1-Gallon	5-Gallon	Description
9805470	—	Red Base
9806470	—	Yellow Base
9807470	9807370	Masstone Base
9808405	9808375	Deep Base
9809415	9809377	Light Base

All standard colors (except 9815 Alumi-Non), tint bases and activators are USDA acceptable under FSIS Directive 11000.4 (Rev.1), November 24, 1995. Color subject to approval of USDA Inspector. Agriculture Canada accepted: 9815, 9822, 9825, 9879, 9892, 9833, 9844, 9845, 9882, 9865, 9868, 9871 and 9886.

This product has been approved per MPI specification #72. Visit paintinfo.com for details.

COMPANION PRODUCTS

RECOMMENDED PRIMERS

9800 System DTM Urethane Mastic is self-priming and can be used without a primer in mild to moderate exposures. The use of a primer is required in severe exposures and on heavily rusted surfaces. Also, aluminum should be primed.

The following primers are recommended for conditions indicated:

- 9100: Severe conditions; (9115 should not be used as a primer)
- 9360 or 9370: Severe conditions; these primers can be topcoated within 30 days, enhanced adhesion over aluminum.
- 5369, 5381: Moderate conditions; enhanced adhesion over aluminum.
- 2068, 2082: Mild to moderate conditions; where a single-coat, fast dry primer is needed.

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 or other suitable cleaner. Mold and mildew areas must be cleaned with a chlorinated cleaner or bleach solution. Rinse with fresh water and allow to 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 1-2 mils (25-50 µ). All weld spatter should be removed along weld seams, rough welds should be ground smooth, and all sharp edges should be ground to a smooth radius.

PREVIOUSLY COATED: Previously coated surfaces must be sound and in good condition. Smooth, hard, glossy or aged two-component epoxy coatings should be scarified by sanding or sweep blasting to create a surface profile. The 9800 System DTM Urethane Mastic 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 onto www.epa.gov/lead.



9800 SYSTEM DTM URETHANE MASTIC

PRODUCT APPLICATION (cont.)

GALVANIZED METAL: Remove oil, dirt, grease and other chemical deposits with Pure Strength® Cleaner/Degreaser item #3599402 or other suitable cleaner. Remove loose rust, white rust or deteriorated old coatings by hand or power tool cleaning or brush off blasting. Rinse thoroughly with fresh water and allow to fully dry.

CONCRETE OR MASONRY: New concrete or masonry must cure 30 days before coating. Any concrete surface must be protected from moisture transmission from uncoated areas. Remove all loose, unsound concrete. Remove laitance and create a surface profile by either acid etching with Rust-Oleum 108402 Cleaning and Etch Solution, or by grinding. Surface sealers and curing agents must be removed by grinding.

APPLICATION

Apply only when air and surface temperatures are between 40-100°F (5-38°C) and surface is at least 5°F (3°C) above the dew point. Can be applied by brush, roller or spray. For proper performance, a dry film thickness of 3 to 5 mils (75 to 125 µ) percoat is required. Excessive brushing or rolling may reduce film thickness. Apply two coats to an abrasive blast cleaned surface. The 9800 System DTM Urethane Mastic can accommodate wet-on-wet recoat after 2 hours of dry time. However this process should be conducted by experienced painters only. Application must be done by spray, and since a wet film thickness gauge is impractical during the application of the second coat, care must be used to avoid excessive film build. Excessive film thickness or application of the second coat before the recommended dry time (2 hours) can result with micro-wrinkling or pinholes; either of which will lower the gloss of the finish. Wet-on-wet application of the 9800 System Urethane Mastic finish can also be done over a first coat of 9100 System DTM Epoxy Mastic (except 9115) or one of the Rust-Oleum® Industrial Primers: 9360 or 9370.

EQUIPMENT RECOMMENDATIONS

BRUSH: Good quality natural or synthetic bristle recommended.

ROLLER: Good quality lamb's wool or synthetic fiber recommended.

AIR-ATOMIZED SPRAY:

Method	Fluid Tip	Fluid Delivery	Atom. Pressure
Pressure	0.050-0.070	10-16 oz./min.	25-60 psi
Siphon	0.043-0.070	—	25-60 psi
HVLP	0.050-0.070	—	10 psi at tip

AIRLESS SPRAY:

Fluid Pressure	Fluid Tip	Filter Mesh
1,800-3,000	0.013-0.017	100

PRODUCT APPLICATION (cont.)

THINNING

For air-atomized spray thin as necessary with 190 or 333 thinner up to ½ pt./gal.

MIXING

Premix base component before adding activator, then combine at a 5:1 ratio by volume and mix together. Once opened, the 9801 Activator must be used within one week.

CLEAN-UP

190 Thinner

PERFORMANCE CHARACTERISTICS

System Tested

Topcoat: 9800 System DTM Urethane Mastic

PENCIL HARDNESS

METHOD: ASTM D3363

RESULT: F-H

CONICAL FLEXIBILITY

METHOD: ASTM D522

RESULT: 32%+

CYCLIC PROHESION

Rating 1-10, 10=best

METHOD: ASTM D5894, 4 cycles, 1,344 hours

RESULT: 10 per ASTM D714 for blistering

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: 74 mg loss

GLOSS (60°)

METHOD: ASTM D523

RESULT: 94% (color-white)

ACCELERATED WEATHERING (% gloss retention)

METHOD: ASTM D4587, QUV Type A bulb, 1,551 hours

RESULT: 95% gloss retention (color-white)

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

PHYSICAL PROPERTIES

		FINISH COLORS	TINT BASES
Resin Type		Aliphatic isocyanate converted acrylic polyurethane (ASTM type V)	Aliphatic isocyanate converted acrylic polyurethane (ASTM type V)
Solvents		Methyl amyl ketone, butyl acetate, esters	Methyl amyl ketone, butyl acetate, esters
Weight*	Per Gallon	9.2-11.2 lbs.	9.4-10.8 lbs.
	Per Liter	1.1-1.3 kg	1.1-1.3 kg
Solids*	By Weight	70-74%	70-73%
	By Volume	58-62%	60%
Volatile Organic Compounds*		<340 g/l (2.8 lbs./gal.)	<340 g/l (2.8 lbs./gal.)
Recommended Dry Film Thickness (DFT) Per Coat		3-5 mils (75-125μ)	3-5 mils (75-125μ)
Wet Film to Achieve DFT		5-8 mils (125-200μ)	5-8 mils (125-200μ)
Theoretical Coverage at 1 mil DFT (25μ)		930-990 sq. ft./gal. (22.9-24.4 m ² /l)	960 sq. ft./gal. (23.6 m ² /l)
Practical Coverage at Recommended DFT (assumes 15% material loss)		160-280 sq. ft./gal. (3.9-6.9 m ² /l)	165-275 sq. ft./gal. (4.0-6.8 m ² /l)
Mixing Ratio		5:1 base to activator by volume	5:1 base to activator by volume
Induction Period†		None required	None required
Pot Life @ 77°F & 50% RH		2-3 hours	2-3 hours
Dry Times at 70-80°F (21-27°C) and 50% rel. hum.	Tack-free	4-6 hours	3-6 hours
	Handle	6-9 hours	6-9 hours
	Recoat	16-24 hours	9-12 hours
Force Cure		n/a	n/a
Dry Heat Resistance		300°F (149°C)	
Shelf Life		2 years for base, 1 year for activator; open activator must be used within one week	
Safety Information	Flash Point	95°F (35°C) setaflash	
	Contains	No lead has been deliberately added	
	Warning!	WARNING! FLAMMABLE LIQUID AND VAPOR. VAPOR HARMFUL. 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 BUTYL ACETATE SOLVENTS. FOR INDUSTRIAL OR COMMERCIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. SEE THE PRODUCT MATERIAL SAFETY DATASHEET (MSDS) AND LABEL WARNINGS FOR ADDITIONAL SAFETY INFORMATION.	

*Activated material.

†For brush and roller applications, a 30 minute set time is recommended.

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

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Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, Illinois 60061
An RPM Company

Phone: 877•385•8155
www.rustoleum.com/industrial

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