

**RUST-OLEUM®**

HIGH PERFORMANCE

**ROCTHANE DIRECT TO METAL  
URETHANE MASTIC 9800****DESCRIPTION AND USES**

**ROCThane Direct-To-Metal Urethane Mastic 9800** is an aliphatic acrylic urethane designed to provide the ultimate in protection and long-lasting appearance. This product is formulated to fight rust while delivering durable color retention in aggressive environments. This product is a high solids, high build, and sag resistant coating that is easy to apply by using multiple application methods. Excellent performance as a direct-to-metal coating or can be applied over approved **ROCEpoxy** Products for premium long-term protection.

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

This product has been approved per MPI specification #72. Visit [paintinfo.com](http://paintinfo.com) for details<sup>1</sup>.

**PRODUCT FEATURES AND BENEFITS**

- Provides the Ultimate Corrosion Protection for Aggressive Environments
- Extremely Durable, Chemical and Abrasion Resistance
- Ultra-Smooth Finish with High Build Capability on Edges and Welds
- Excellent UV Protection for Outstanding Color and Gloss Retention
- Extended pot life up to 3 hours
- Can be applied as low as 40°F
- Eight Year Rust-Proof Guarantee\*

**PRODUCTS****FINISHES – GLOSS**

1 Gallon	5 Gallons	DESCRIPTION
9815419	-----	Alumi-NON®
9879419	-----	Black
9882419	-----	Silver Gray
9886419	-----	Navy Gray
9892419	9892383	White
9825419	-----	Safety Blue
9844419	-----	Safety Yellow
204004	-----	Safety Red

**FINISHES – FLAT**

1 Gallon	DESCRIPTION
321696	Flat Black

**TINT BASES – GLOSS**

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

<sup>1</sup> Refer to the MPI website for the most current listing of MPI certified products.

**PRODUCTS (cont.)****TINT BASES – SATIN**

1 Gallon	DESCRIPTION
332057	Satin Masstone Base
332058	Satin Deep Base
332059	Satin Light Base

**ACTIVATOR**

1 Quart	1 Gallon	DESCRIPTION
9801501	9801419	Activator

All **ROCThane Direct-To-Metal Urethane Mastic 9800** standard colors (except 9815 Alumi-Non), tint bases and activators comply with USDA FSIS regulatory sanitation performance standards for food establishment. This coating is impervious to moisture and easily cleaned and sanitized. Agriculture Canada accepted: 9815, 9825, 9879, 9892, 9844, 9882, and 9886.

**PACKAGING****ONE GALLON**

Standard premix colors are packaged in a short filled gallon container to allow for the addition of activator. The 9801501 Activator is packaged in a short filled, cone top, quart container. The combined base and activator components will yield one full gallon.

**FIVE GALLON**

Standard premix colors are packaged in a short filled five gallon pail to allow for the addition of activator. The 9801419 Activator is packaged in a short filled gallon container. The combined base and activator components will yield five full gallons.

**TINT BASES**

The base component for the tint bases is further short filled to allow for the addition of both the activator and the colorant. The amount of colorant used will vary for the specific color.

The following tint bases are available:

**Red Base** – The red tint base can accept up to 16 ounces of colorant per gallon. Not available in fives or in Satin.

**Yellow Base** – The yellow tint base can accept up to 16 ounces of colorant per gallon. Not available in fives or in Satin.

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

**Deep Base** – The deep tint base contains 0.8 pounds of titanium dioxide per gallon. It can accept up to 12 ounces of colorant per gallon.

**Light Base** – The white tint base contains 1.8 pounds of titanium dioxide per gallon. It can accept up to 8 ounces of colorant per gallon.

The entire container of activator must be added to the tinted base component, regardless of the amount of colorant used. Colors which do not use the maximum load of colorant will yield less than a full container of activated material.

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**ROCTHANE DIRECT TO METAL  
URETHANE MASTIC 9800****COMPANION PRODUCTS****RECOMMENDED PRIMERS**

**ROCThane Direct-To-Metal Urethane Mastic 9800** 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:

- **ROCEpoxy Direct-To-Metal Epoxy Mastic 9100:** Severe conditions; (9115 should not be used as a primer)
- **ROCEpoxy High Solids Epoxy Primer HS9300:** Severe conditions; these primers can be topcoated within 30 days, enhanced adhesion over aluminum.
- **ROCPRime Water-Based Hybrid 1K Epoxy Primer:** Mild to moderate conditions, aluminum; where a single-coat, fast dry primer is needed.

**RUST PROOF GUARANTEE\***

\*Submitting the Eight-Year Rust-Proof Guarantee form located on the **ROCThane Direct-To-Metal Urethane Mastic 9800** web page completely filled out, signed and with proof of purchase attached, no later than 30 days after project completion for projects using up to 50 gallons is required to qualify for the rust-proof guarantee. For projects larger than 50 gallons, please contact Rust-Oleum Technical Service Department at: Rust-Oleum Technical Service Department, 11 Hawthorn Pkwy, Vernon Hills, IL 60061, or email to: [technicalservice@rustoleum.com](mailto:technicalservice@rustoleum.com)

**PRODUCT APPLICATION****SURFACE PREPARATION**

**ALL SURFACES:** (SSPC-SP-1) Remove all dirt, grease, oil, salt, and chemical contaminants by washing the surface with Krud Kutter® PRO Cleaner Degreaser. Mold and mildew must be cleaned with Krud Kutter PRO One Step Cleaner & Disinfectant. Rinse thoroughly with fresh water and allow to fully dry. All surfaces must be dry at time of application.

**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 NACE3/SSPC-SP-6, with a blast profile of 1-2 mils (25-50µ). 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 **ROCThane Direct-To-Metal Urethane Mastic 9800** is compatible with most coatings, but a test patch is suggested.

**WARNING!** If you scrape, sand, or remove old paint, you may release lead 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. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to [www.epa.gov/lead](http://www.epa.gov/lead).

**PRODUCT APPLICATION (cont.)****SURFACE PREPARATION (cont.)**

**GALVANIZED METAL:** (SSPC-SP1) Remove oil, dirt, grease, and other chemical deposits with Krud Kutter PRO Cleaner Degreaser. 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 per NACE 6/SSPC-SP13 Standard by acid etching with Concrete Saver® 108 Clean and Etch Solution or by grinding. Surface sealers and curing agents must be removed by grinding. This product is intended for vertical applications for its primary uses. Limited exposure horizontal applications may apply – contact your sales representative or Rust-Oleum Technical Service for further information.

**MIXING**

Thoroughly mix the base component to ensure any settled pigment is re-dispersed before combining the components together. Combine at a 5:1 ratio (base to activator) by volume and mix thoroughly for 2-3 minutes. Power mixing is preferred. Do not mix more material than you plan to use with the listed pot life.

**NOTE:** Tint Bases must be tinted prior to activating.

**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 125µ) per coat is required. Excessive brushing or rolling may reduce film thickness. Apply two coats to an abrasive blast cleaned surface. The **ROCThane Direct-To-Metal Urethane Mastic 9800** 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 **ROCThane Direct-To-Metal Urethane Mastic 9800** finish can also be done over a first coat of **ROCEpoxy Direct-To-Metal Epoxy Mastic 9100** (except 9115) or the **ROCEpoxy High Solids Epoxy Primer HS9300**.

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## PRODUCT APPLICATION (cont.)

### EQUIPMENT RECOMMENDATIONS

(Comparable equipment also suitable.)

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

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

### AIR-ATOMIZED SPRAY

Method	Fluid Tip	Fluid Delivery	Atomized Pressure
Pressure	0.055-0.070	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 psi	0.013-0.017	100

**Caution:** Protect surrounding surfaces from over spray. Over spray can be wet or dry depending on height of work, weather, environmental conditions, and application equipment. Wet over spray can adhere to unwanted surfaces. Dry over spray may be removed by wiping or washing. Always clean dry over spray from hot surfaces before fusing occurs as surface temperatures can be higher than the air temperature.

### THINNING

For air-atomized spray thin as necessary with 190 or 333 Thinner up to ½ pint per gallon.

### CLEAN-UP

Use 190 Thinner.

## PERFORMANCE CHARACTERISTICS

### SYSTEM TESTED

**ROCThane Direct-To-Metal Urethane Mastic 9800.**  
For chemical and corrosion resistance, see the Rust-Oleum Industrial Brands Catalog.

### 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: 83% (color-white)

### ACCELERATED WEATHERING (% gloss retention)

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

RESULT: 95% gloss retention (color-white)

### MOISTURE PERMEABILITY

METHOD: ASTM D1653

CONDITIONS: 73°F 50% RH 3.1 mils WFT

RESULTS: WVT-2.73 g/m<sup>2</sup>/24 hours

WVP-0.26 g/m<sup>2</sup>/24 hours/mm Hg

<b>URETHANE</b>	<b>TECHNICAL DATA</b>	<b>RO-209</b>
	<b>ROCTHANE DIRECT TO METAL URETHANE MASTIC 9800</b>	

## 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 <sup>2</sup>	Per Gallon	9.2-11.4 lbs.	9.3-10.8 lbs.
	Per Liter	1.1-1.3 kg	1.1-1.3 kg
Solids <sup>2</sup>	By Weight	70-74%	70-73%
	By Volume	58-62%	60-62%
Volatile Organic Compounds <sup>2</sup>		<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)
Practical Coverage at Recommended DFT (assumes 15% material loss)		160-280 sq. ft./gal. (3.9-6.9 m <sup>2</sup> /l)	165-280 sq. ft./gal. (4.0-6.9 m <sup>2</sup> /l)
Mixing Ratio		5:1 base to activator by volume	5:1 base to activator by volume
Induction Period <sup>3</sup>		None required	None required
Pot Life @ 70°F & 50% Relative Humidity		2-3 hours	2-3 hours
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	Tack-free	4-6 hours	3-6 hours
	Handle	6-9 hours	6-9 hours
	Recoat	16-72 hours	
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		For additional information, see SDS	

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

<sup>2</sup> Activated material.

<sup>3</sup> For brush and roller applications, a 30-minute set time is recommended.

The technical data and suggestions for use contained herein are correct to the best of our knowledge, and offered in good faith. The statements of this literature do not constitute a warranty, express, or implied, as to the performance of these products. As conditions and use of our materials are beyond our control, we can guarantee these products only to conform to our standards of quality, and our liability, if any, will be limited to replacement of defective materials. All technical information is subject to change without notice.



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