



RUST-OLEUM® 3800 SYSTEM DTM ACRYLIC ENAMEL

DESCRIPTION AND USES

The 3800 System DTM Acrylic Enamel is a fast dry, water-based, low VOC, acrylic finish for indoor or outdoor direct-to-metal (DTM) applications. This highly corrosion resistant coating is suitable for use in mild to moderate environments and any other areas where fast dry and minimal downtime is required.

The 3800 System complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities. This coating is impervious to moisture and easily cleaned and sanitized.

MPI #161, #163, #164 certified. (Refer to the MPI website for the most current listing of MPI certified products.)

PRODUCTS

FINISHES - GLOSS

1-Gallon	5-Gallon	DESCRIPTION
314389	316531	Gloss White
314388	316533	Navy Gray
314387	316534	Black
314410	316535	Safety Red
314409	316536	Safety Yellow
314407	316537	Safety Green
314209	316538	Safety Blue
315510	316544	Safety Orange
315506	316540	Silver Gray
315508	316542	Dunes Tan
315509	316543	Forest Green

FINISHES - SATIN

1-Gallon	DESCRIPTION
350412	Black

FINISHES - FLAT

1-Gallon	5-Gallon	DESCRIPTION
340657	340665	Flat White
340656	340664	Flat Black

TINT BASES - GLOSS

1-Gallon	5-Gallon	DESCRIPTION
314594	316518	Light Tint Base
314593	316519	Deep Tint Base
314592	316520	Masstone Tint Base

PRODUCTS (cont.)

TINT BASES – SEMI GLOSS

1-Gallon	5-Gallon	DESCRIPTION
324167	324170	Light Tint Base
324168	324171	Deep Tint Base
324169	324172	Masstone Tint Base

TINT BASES - SATIN

1-Gallon	5-Gallon	DESCRIPTION
340652	340660	Light Tint Base
340649	340658	Deep Tint Base
340651	340659	Masstone Tint Base

TINT BASES - FLAT

1-Gallon	5-Gallon	DESCRIPTION
340655	340663	Light Tint Base
340653	340661	Deep Tint Base
340654	340662	Masstone Tint Base

TINT BASE MAXIMUM COLORANT

1-Gallon	5-Gallon	DESCRIPTION
4 oz.	20 oz.	Light Tint Base
8 oz.	40 oz.	Deep Tint Base
12 oz.	60 oz.	Masstone Tint Base

TINT GUIDELINES:

Semigloss Masstone base: Max 8 oz. loading of 888 E, & 808 AXX, B, E, T, L

Gloss Deep base: Max 6 oz. loading of 808 B

Satin Deep base: Max 6 oz. loading of 808 B

Gloss Light base: Max 3 oz. loading of 808 B, T

The 3800 System DTM Tint Bases can be applied direct-to-metal (DTM), however optimal corrosion protection is achieved when the finish coat is used in conjunction with one of the recommended primers.

Priming is recommended when Tint Bases exceed 2 oz. of colorant per gallon.

RECOMMENDED PRIMERS

- Rust-Oleum ROC Prime 100
- Rust-Oleum Universal Acrylic Primer
- Sierra Performance™ Griptec™ Acrylic Primer



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PRODUCT APPLICATION

SURFACE PREPARATION

ALL SURFACES: 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: Hand tool (SSPC-SP-2) or power tool (SSPC-SP-3) clean to remove loose rust, mill scale, and deteriorated previous coatings.

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 Rust-Oleum® 3800 System DTM Acrylic Enamel is compatible with most coatings, but a test patch is suggested.

APPLICATION

Apply only when the air and surface temperatures are between 40-100°F (4-38°C) and the surface temperature is at least 5°F (3°C) above the dew point. The relative humidity should not be greater than 95%.

The dry times published on page 3 are under conditions of 70-80°F (21-27°C) and a relative humidity of 50%. At lower temperatures, the dry times will be increased and the full development of the coating's physical properties will take longer. Improved air flow will aid the curing process when temperatures are below 50°F or the relative humidity is greater than 80%.

EQUIPMENT RECOMMENDATIONS

(Comparable equipment also suitable)

BRUSH: Use a good quality synthetic bristle brush.

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

AIR-ATOMIZED SPRAY

Method	Fluid Tip	Fluid Delivery	Atomized Pressure
Pressure	0.055-0.070	1-16 oz./min.	25-60 psi
Siphon	0.055-0.070	--	25-60 psi
HVLP (var.)	0.043-0.070	8-10 oz./min.	10 psi (at tip)

AIRLESS SPRAY

Fluid Pressure	Fluid Tip	Filter Mesh
1,600-2,400 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.

PRODUCT APPLICATION (cont.)

THINNING

BRUSH/ROLLER: Normally not required. When necessary, thin with fresh water.

AIR ATOMIZED SPRAY: Up to 1 pint per gallon.

AIRLESS SPRAY: Up to ½ pint per gallon.

CLEAN-UP

Soap and water.

PERFORMANCE CHARACTERISTICS

PENCIL HARDNESS

METHOD: ASTM D3363 (1 week cure)

RESULT: 2B

CONICAL FLEXIBILITY

METHOD: ASTM D522

RESULT: >33%

SALT SPRAY (250 hours)

METHOD: ASTM B117 (Rust)

RESULT: 8

METHOD: ASTM D1654 (Scribe Creep)

RESULT: Rating 3

METHOD: ASTM D714 (Blisters)

RESULT: Rating 9

IMPACT RESISTANCE (Direct/Reverse)

METHOD: ASTM D2794

RESULT: <25, <75

60° GLOSS

METHOD: ASTM D2243

RESULT: High Gloss: 85+

Semi-Gloss: 35-55

Satin: 20-35

ACCELERATED WEATHERING (% Gloss Retention)

METHOD: ASTM D4587, QUV Type A bulb, 500 hours

RESULT: 48-52%

ACRYLIC	TECHNICAL DATA	RO-127
RUST-OLEUM® HIGH PERFORMANCE INDUSTRIAL COATINGS	RUST-OLEUM® 3800 SYSTEM DTM ACRYLIC ENAMEL	

PHYSICAL PROPERTIES

		3800 SYSTEM DTM ACRYLIC ENAMEL
Resin Type		Acrylic
Pigment Type		Varies with color
Solvents		Water, Glycol Ether
Weight	Per Gallon	8.5-10.9 lbs.
	Per Liter	1.02-1.31kg
Solids	By Weight	34.9-50.6%
	By Volume	32.6-39.6%
Volatile Organic Compounds		<250 g/l (2.08 lbs./gal.)
Recommended Dry Film Thickness (DFT) Per Coat		2.0-3.0 mils (50-75µ)
Wet Film to Achieve DFT		5.0-8.0 mils (125-200µ)
Theoretical Coverage at 1 mil DFT (25µ)		522-635 sq. ft./gal. (12.8-15.6 m ² /l)
Practical Coverage at Recommended DFT (assumes 15% material loss)		150-270 sq. ft./gal. (3.7-6.6 m ² /l)
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	Touch	15 minutes
	Handle	45 minutes
	Recoat	2 hours
	Full Cure	7 days
Dry Heat Resistance		200°F (93°C)
Shelf Life		3 years
Safety Information		For additional information, see SDS

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

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