



## S37 SYSTEM METALMAX® DTM ACRYLIC ENAMEL

### DESCRIPTION

The S37 Metalmax® DTM Acrylic Urethane is a zero VOC<sup>†</sup>, zero HAP, single component, water-based acrylic urethane. This coating is designed for direct to metal (DTM) application to steel surfaces in mild to moderate industrial environments. It can be used on galvanized steel, aluminum, and other metals in both interior and exterior applications. Since this coating is very low odor during application, it is ideal for use in schools, healthcare facilities, food service areas, office buildings, hotels or in any area where odors are an issue.

Meets requirements of USDA FSIS Directive 11,000.4.

### PRODUCTS

1-Gallon	5-Gallon	Description
208031	208032	White Pastel Tint Base
208033	208034	Tint Base
208035	208036	Deep Tint Base
208037	208038	Accent Tint Base
208039	208556	Black
210475	210476*	Safety Red
210477	210478*	Safety Yellow
238752	243756	White
238753	—	Safety Blue
238754	—	Navy Gray
238755	—	Gray Primer**

\*Made-To-Order only. Contact Rust-Oleum Customer Service for details.

\*\*Use the Gray Primer to optimize corrosion protection or to provide a base coat when coating substrates which have varying color. This will help ensure a uniform final appearance.

### 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, 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:** At minimum, Hand Tool (SSPC-SP-2) or Power Tool (SSPC-SP-3) clean to remove all loose rust, mill scale, and deteriorated previous coatings. If abrasive blast cleaning is done, the blast profile should not exceed 1-2 mil (25-50µ). Abrasive blast cleaned steel requires two coats of primer.

**GALVANIZED STEEL:** New galvanized steel should be solvent cleaned to remove all post galvanizing treatments such as oil, grease or wax. Old or existing galvanized steel should be thoroughly washed to remove all surface contaminants.

**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 S37 MetalMax DTM Finish is compatible with most coatings, but a test patch is suggested. **NOTE:** Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause adverse effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH-approved) and proper containment and cleanup. For additional information, contact the U.S.EPA/LeadInformation Hotline at 1-800-424-LEAD.



## TECHNICAL DATA

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### PRODUCT APPLICATION (cont.)

#### APPLICATION

Apply only when air and surface temperatures are between 50-100°F (10-38°C) and surface temperature is at least 5°F above dew point. The relative humidity should not be greater than 85%. Be aware of surface temperature when ambient air temperature is above 90°F (32°C). The coating should not be applied if the surface temperature is 100°F (38°C) or greater. Ensure fresh air entry during application and drying. The MetalMax can be applied direct to metal on clean substrates. The Gray Primer should be used to optimize performance on sound rusted steel. Use the Gray Primer to optimize corrosion protection or to provide a base coat when coating substrates which have varying color. This will help ensure a uniform final appearance.

#### TINTING

The MetalMax tint bases can be tinted with Rust-Oleum 2030 Water-based Colorants or other high quality water-based or universal colorants, however these colorants will slightly increase VOC, but if used at the recommended levels, the VOC will not exceed 100 g/l. Use Evonik COLORTREND® PLUS 802 colorants to maintain zero VOC.

White Pastel Base accepts 2 oz. of tint.

Tint Base accepts 4 oz. of tint.

Deep Base accepts 8 oz. of tint.

Accent Base accepts 12 oz. of tint.

#### EQUIPMENT RECOMMENDATIONS

BRUSH: Use a good quality synthetic bristle brush.

ROLLER: Use a good quality synthetic nap roller cover.

AIR-ATOMIZED SPRAY:

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

Air cap for highest pressure

AIRLESS SPRAY:

Fluid Pressure	Fluid Tip	Filter Mesh
2000-3000 psi	0.013-0.017	100

#### THINNING

If needed thin with water. Do not exceed 4 fl. oz./gal.

#### CLEAN-UP

Clean up with soap and water and dispose of all waste material in a proper manner and in accordance with local waste regulations. Consult with local environmental regulations for appropriate method of disposal and/or recycling of paint and empty container.

### PERFORMANCE CHARACTERISTICS

#### SCRUB RESISTANCE

METHOD: ASTM D2486

RESULT: >400 cycles

#### WASHABILITY

METHOD: ASTM D4828

RESULT: 7

#### CONICAL FLEXIBILITY

METHOD: ASTM D522

RESULT: 180° on 1/2" Mandrel

#### PROHESION (1 coat DTM)

Rating 1-10 10=best

METHOD: ASTM D5894, 1,000 hours

RESULT: 10 per ASTM D714 for blistering

RESULT: 6 per ASTM D1654 for corrosion

RESULT: 10 per ASTM D610 for rusting

#### IMPACT RESISTANCE (direct)

METHOD: ASTM D2794

RESULT: 100 lbs.

#### GLOSS AT 60°

METHOD: ASTM D523

RESULT: 40-50%

#### FADE RESISTANCE

METHOD: ASTM G151-06, QUV Type A bulb, 1,000 hours

RESULT:  $\Delta E = 0.68$

#### CROSSHATCH ADHESION

METHOD: ASTM D3359

RESULT: 4B

#### WATER RESISTANCE

METHOD: ASTM D1735-04, CRS, 7 day cure

RESULT: No effect @ >1,000 hours

#### HIDING POWER

METHOD: ASTM D2805

RESULT: 0.99 (white)

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



## TECHNICAL DATA

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### PHYSICAL PROPERTIES

<b>Resin Type</b>		Acrylic Urethane
<b>Pigment Type</b>		Varies with color
<b>Solvents</b>		Water
<b>Weight</b>	<b>Per Gallon</b>	10.3 lbs.
	<b>Per Liter</b>	1.2 kg
<b>Solids</b>	<b>By Weight</b>	51%
	<b>By Volume</b>	40%
<b>Viscosity</b>		90-100 KU
<b>Volatile Organic Compounds<sup>††</sup></b>		0.0 g/l
<b>Recommended Dry Film Thickness (DFT) Per Coat</b>		1-3 mils (25-75μ)
<b>Wet Film to Achieve DFT</b>		2.5-7.5 mils (62.5-187.5μ)
<b>Theoretical Coverage at 1 mil DFT (25μ)</b>		640 sq. ft./gal. (15.8 m <sup>2</sup> /l)
<b>Practical Coverage at Recommended DFT (assumes 15% material loss) Use this value for material quantity estimate</b>		180-545 sq. ft./gal. (4.4-13.4 m <sup>2</sup> /l)
<b>Dry Times at 77°F (25°C) and 50% Relative Humidity</b>	<b>Tack-free</b>	30 minutes
	<b>Recoat</b>	2-4 hours
<b>Dry Heat Resistance</b>		200°F (93°C)
<b>Shelf Life</b>		3 years
<b>Safety Information</b>	<b>Formulation</b>	Lead-free/Solvent-free
	<b>Warning!</b>	<b>PROTECT FROM FREEZING</b>

<sup>†</sup>Measured by ASTM D6886. Tinting with some colorants may add minor amounts of VOC.  
Calculated values are shown and may vary slightly from the actual manufactured material.

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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