



**S37 SYSTEM
METALMAX® DTM ACRYLIC ENAMEL**

DESCRIPTION AND USES

The S37 System MetalMax® DTM Acrylic Urethane is a zero VOC, 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.

MetalMax DTM Acrylic Enamel complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities. This coating is impervious to moisture and easily cleaned and sanitized.

PRODUCTS

1-Gallon	5-Gallon	Description
Semi-Gloss Finish		
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
Satin Finish		
282539	282699	Satin White
282540	282710	Satin Black
282538	282715	Satin Pastel Tint Base
282459	282714	Satin Tint Base
282537	282713	Satin Deep Tint Base
282536	282711	Satin Accent Tint Base
Primer		
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 Krud Kutter® 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: 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 mils (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.

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.



TECHNICAL DATA

S37 SYSTEM METALMAX® DTM ACRYLIC ENAMEL

PRODUCT APPLICATION (cont.)

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	Atomization 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 fluid ounces per gallon.

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 Rust-Oleum Industrial Brands Catalog (Form #275585).

**TECHNICAL DATA****S37 SYSTEM METALMAX® DTM ACRYLIC ENAMEL****PHYSICAL PROPERTIES**

Resin Type		Acrylic Urethane
Pigment Type		Varies with color
Solvents		Water
Weight	Per Gallon	8.7-10.6 lbs.
	Per Liter	1.04-1.27 kg
Solids	By Weight	36.3-50.8%
	By Volume	30.2-38.4%
Volatile Organic Compounds***		0.0 g/l**
Recommended Dry Film Thickness (DFT) Per Coat		2.0-3.0 mils (50-75µ)
Wet Film to Achieve DFT		6.0-10.0 mils (150-250µ)
Theoretical Coverage at 1 mil DFT (25µ)		484-616 sq. ft./gal. (11.9-15.2 m ² /l)
Practical Coverage at Recommended DFT (assumes 15% material loss) Use this value for material quantity estimate		137-523 sq. ft./gal. (3.4-13.4 m ² /l)
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	Tack-free	30 minutes
	Recoat	2-4 hours
Dry Heat Resistance		200°F (93°C)
Shelf Life		3 years
Warning!		PROTECT FROM FREEZING
Safety Information		For additional information, see SDS

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

*** Measured by ASTM D6886. Tinting with some colorants may add minor amounts of VOC.

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.



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

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

Form: GDH-450
Rev.: 051118