



METALMAX® PLUS HIGH GLOSS DTM ACRYLIC ENAMEL

DESCRIPTION AND USES

The Metalmax® Plus DTM Acrylic Urethane is a high gloss, 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 Plus 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
264164	264198	White Pastel Tint Base
264176	---	Tint Base
264170	---	Deep Tint Base
264173	264201	Accent Tint Base
264186	264208	Black
264182	---	Safety Red
264183	264207	Safety Yellow
264179	264204	White
264184	---	Safety Blue
264185	---	Navy Gray
264188	---	Clear Gloss
238755	---	Gray Primer*

* 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® 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: 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.

PRODUCT APPLICATION (cont.)

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 Metalmax Plus Acrylic Enamel 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 Plus 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 Plus 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 COLORTREND® PLUS 808 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	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



TECHNICAL DATA

METALMAX[®] PLUS HIGH GLOSS DTM ACRYLIC ENAMEL

PRODUCT APPLICATION (cont.)

THINNING

If needed thin with clean, fresh 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: 200 cycles

WASHABILITY

METHOD: ASTM D4828

RESULT: 5

CONICAL FLEXIBILITY

METHOD: ASTM D522

RESULT: 180° on 1/8" Mandrel

PROHESION (1 coat DTM)

Rating 1-10 10=best

METHOD: ASTM D5894, 500 hours

RESULT: 10 per ASTM D714 for blistering

RESULT: 5 per ASTM D1654 for corrosion

RESULT: 9 per ASTM D610 for rusting

IMPACT RESISTANCE (direct)

METHOD: ASTM D2794

RESULT: >240lbs.

GLOSS AT 60**

METHOD: ASTM D523

RESULT: 70-90%

FADE RESISTANCE

METHOD: ASTM 4587, 500 hours

RESULT: $\Delta E = 0.70$

CROSSHATCH ADHESION

METHOD: ASTM D3359

RESULT: CRS - 5B

Aluminum - 5B

Galvanized Steel - 3B

HIDING POWER

METHOD: ASTM D2805

RESULT: 0.99

** Average results between white and black. Values are representative of typical performance for all colors.



TECHNICAL DATA

METALMAX[®] PLUS 1K HIGH GLOSS DTM ACRYLIC ENAMEL

PHYSICAL PROPERTIES

Resin Type	Urethane Modified Acrylic	
Pigment Type	Varies with color	
Solvents	Water	
Weight	Per Gallon	8.6-10.2 lbs.
	Per Liter	1.03-1.22 kg
Solids	By Weight	36.1-39.0%
	By Volume	38.7-39.6%
Volatile Organic Compounds	0 g/l	
Recommended Dry Film Thickness (DFT) Per Coat	1-3 mils (25-75 μ)	
Wet Film to Achieve DFT	2.5-7.5 mils (62.5-187.5 μ)	
Theoretical Coverage at 1 mil DFT (25 μ)	620-635 sq. ft./gal. (15.2-15.6 m ² /l)	
Practical Coverage at Recommended DFT (assumes 15% material loss) Use this value for material quantity estimate	175-540 sq.ft./gal. (4.3-13.3 m ² /l)	
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	Touch	30 minutes
	Handle	60 minutes
	Recoat	60 minutes
	Full Cure	7 days
Dry Heat Resistance	NA	
Shelf Life	3 years	
Flash Point	>200°F (93°C)	
Storage Information	Protect from freezing	
Safety Information	For additional information, see SDS	

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

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