

RUST-OLEUM®



3700 SYSTEM DTM ACRYLIC ENAMEL

DESCRIPTION AND USES

The 3700 System DTM Acrylic Enamel is a low VOC, water based acrylic finish for indoor or outdoor direct-to-metal (DTM) applications, suitable for use in conditions of high relative humidity and/or low temperatures.

The 3700 System complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities. This coating is impervious to moisture and easily cleaned and sanitized.

PRODUCTS

READY-MIXED GLOSS FINISHES

1-Gallon	5-Gallon	Description
3737402	—	Forest Green
3771402	213970	Dunes Tan
3779402	3779300	Gloss Black
3782402	222823	Silver Gray
3786402	—	Navy Gray
3792402	3792300	Gloss White
3725402	3725300	Safety Blue
3744402	3744300	Safety Yellow
3764402	306660	Safety Red
206165	---	Safety Orange
206164	—	Alumi-Non
206166	—	Flat Black

TINT BASES

3707411	3707391	Masstone Base
3708418	3708394	Deep Base
3709417	3709397	Light Base

The tint bases use the Rust-Oleum Water-Based Colorants.

COMPANION PRODUCTS

PRIMERS

1-Gallon	5-Gallon	Description
3769402	3769300	Red Primer
3781402	3781300*	Gray Primer

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: Hand tool (SSPC-SP-2) or power tool (SSPC-SP-3) clean to remove loose rust, mill scale, and deteriorated previous coatings. Abrasive blasting to a minimum Commercial Grade (SSPC-SP-6, NACE 3) with a 1-2 mil (25-50µ) surface profile is recommended for optimal performance. Abrasive blast cleaned steel requires two coats of primer.

CONCRETE AND MASONRY: Hand or power tool clean to remove all loose or unsound concrete, masonry, or previous coating. Very dense, non-porous concrete should be acid etched or abrasive blasted to remove the laitance layer and create a surface profile. Allow new concrete to cure for 30 days before coating.

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 3700 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 35-100°F (2-38°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%.



PRODUCT APPLICATION (cont.)

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	Atomization Pressure
Pressure	0.055-0.070	12-16 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

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

RESULT: B

CONICAL FLEXIBILITY

METHOD: ASTM D522

RESULT: >33%

CYCLIC PROHESION

Rating 1-10. 10=best

METHOD: ASTM D5894 2 cycles, 672 hours

RESULT: 10 per ASTM D714 or blistering

RESULT: 9 per ASTM D1654 for corrosion

IMPACT RESISTANCE (direct/reverse)

METHOD: ASTM D2794

RESULT: >160/>160

TABER ABRASION

METHOD: ASTM D4060, CS17 wheels 500 g load, 1000 cycles

RESULT: 42 mg loss

ACCELERATED WEATHERING (% gloss retention)

METHOD: ASTM D4587, QUV Type A bulb, 450 hours

RESULT: 87% retention (color-black)

For chemical and corrosion resistance see page 4 of the Rust-Oleum Industrial Brands Catalog Form #275585.



TECHNICAL DATA

3700 SYSTEM DTM ACRYLIC ENAMEL

PHYSICAL PROPERTIES

		READY-MIXED	TINT BASES
Resin Type		Acrylic dispersion	Acrylic dispersion
Pigment Type		Varies with color	Varies with color
Solvents		Water, Propylene Glycol	Water, Propylene Glycol
Weight	Per Gallon	8.5-10.0 lbs.	8.5-9.9 lbs.
	Per Liter	1.0-1.2 kg	1.0-1.2 kg
Solids	By Weight	34-51%	38-44%
	By Volume	35-40%	36-39%
Volatile Organic Compounds		<250 g/l (2.08 lbs./gal.)	<250 g/l (2.08 lbs./gal.)
Recommended Dry Film Thickness (DFT) Per Coat		2-3 mils (50-75 μ)	2-3 mils (50-75 μ)
Wet Film to Achieve DFT		5-8 mils (125-200 μ)	5.0-8.5 mils (125-212.5 μ)
Theoretical Coverage at 1 mil DFT (25 μ)		561-640 sq.ft./gal. (15.0-15.7 m ² /l)	577-626 sq.ft./gal. (14.2-15.4 m ² /l)
Practical Coverage at Recommended DFT (assumes 15% material loss)		160-270 sq.ft./gal. (3.9-6.6 m ² /l)	160-270 sq.ft./gal. (3.9-6.6 m ² /l)
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	Tack-free	1-2 hours	1-2 hours
	Handle	2-4 hours	2-4 hours
	Recoat	1-3 hours	1-3 hours
Dry Heat Resistance		200°F (93°C)	200°F (93°C)
Shelf Life		5 years	5 years
Safety Information		PROTECT FROM FREEZING. CAUTION! MAY CAUSE EYE AND SKIN IRRITATION. FOR INDUSTRIAL AND COMMERCIAL USE ONLY. SEE THE MATERIAL SAFETY DATA SHEET (SDS) AND LABEL WARNINGS FOR ADDITIONAL SAFETY INFORMATION.	

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

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