RUST-OLEUM® HIGH PERFORMANCE®

3100 SYSTEM SPEEDY-DRY DTM ACRYLIC ENAMEL

DESCRIPTION AND USES

A low VOC, fast-dry, direct-to-metal (DTM), water-based acrylic high gloss enamel.

Designed for application to properly prepared steel surfaces and previously coated and primed substrates in mild to moderate industrial environments. Ideal for use on equipment, machinery, and any other areas where fast dry and minimal downtime is required.

PRODUCTS

READY-MIXED HIGH GLOSS FINISHES

1-Gallon	5-Gallon	Description
3115402	3115300	Alumi-Non® (semi-gloss)
3125402	—	Safety Blue
3144402	3144300	Safety Yellow
3165402	3165300*	Red
3171402	3171300*	Dunes Tan
3179402	3179300	Black
3186402	3186300*	Navy Gray
3192402	3192300	White

TINT BASES

1-Gallon	5-Gallon	Description
3107411	3107391*	Masstone
3108418	3108394*	Deep
3109417	3109397	Light

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

COMPANION PRODUCTS

COMPATIBLE PRIMERS

1-Gallon	5-Gallon	Description
3169402	3169300*	Red Primer
3181402	3181300	Gray Primer

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

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, 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.

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 Industrial Speedy-Dry DTM Acrylic Enamel is compatible with most coatings, but a test patch is suggested. 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/Lead Information Hotline at 1-800-424-LEAD.

APPLICATION

Apply only when the air and surface temperatures are between 50-100°F (10-38°C) and the surface temperature is at least 5°F (3°C) above the dew point. The relative humidity should not be greater than 85%. Extremely high or low relative humidity can effect dry times and the final gloss of the coating. For optimum protection on abrasive-blasted steel, two coats of Rust-Oleum Industrial Speedy-Dry DTM Acrylic Red or Gray Primer plus one coat of Rust-Oleum Industrial Speedy-Dry DTM Acrylic Enamel are required.

Form: 2065990
Rev.: 111411

PRODUCT APPLICATION (cont.)

EQUIPMENT RECOMMENDATIONS

(Comparable equipment also suitable)

BRUSH: Use a good quality synthetic bristle brush.

AIR-ATOMIZED SPRAY:

Method	Fluid Tip	Fluid Delivery	Atom. Pressure
Pressure	0.055-0.070	8-16 oz./min.	60-75 psi
Siphon	0.055-0.070	—	30-60 psi

AIRLESS SPRAY:

Pump Ratio	Fluid Tip†	Fluid Pressure	Filter Mesh
30:1	0.013-0.021	2,500-3,000 psi	100

†3115 Aluminum should be applied with a 411 tip for best spray.

THINNING

BRUSH: Thinning normally not required.

AIR-ATOMIZED SPRAY: 5-10% by volume (approximately ½ pint/gallon) with fresh clean water if needed.

AIRLESS SPRAY: Thinning normally not required.

CLEAN-UP

Soap and water.

PERFORMANCE CHARACTERISTICS

PENCIL HARDNESS

METHOD: ASTM D3363

RESULT: H

CONICAL FLEXIBILITY

METHOD: ASTM D522

RESULT: >33%

GLOSS (60°)

METHOD: ASTM D4587

RESULT: 97 (color–black)

CYCLIC PROHESION

Rating1-10, 10=best

METHOD: ASTM D5894, 2 cycles, 672 hours

RESULT: 10 per ASTM D714 or blistering

RESULT: 9 per ASTM D1654 or corrosion

IMPACT RESISTANCE (direct/reverse)

METHOD: ASTM D2794

RESULT: >160/>160

ACCELERATED WEATHERING (% gloss retention)

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

RESULT: 87% retention (color–black)

TABER ABRASION

METHOD: ASTM D4060 CS-17 wheels, 500 g. load, 1,000 cycles

RESULT: 64 mg loss

For chemical and corrosion resistance see page 4 of the Rust-Oleum Industrial Brands Catalog Form # 206275.

3100 SYSTEM SPEEDY-DRY DTM ACRYLIC ENAMEL

PHYSICAL PROPERTIES

		READY MIX FINISHES	TINT BASES
Resin Type		Water-based acrylic polymer	Water-based acrylic polymer
Pigment Type		Varies with color	Varies with color
Solvents		Water	Water
Weight	**Per Gallon**	8.7-10.1 lbs.	8.7-10.3 lbs.
	Per Liter	1.0-1.2 kg	1.0-1.2 kg
Solids	**By Weight**	39-50%	40.0-51.3%
	By Volume	36-39%	37.0-39.5%
Volatile Organic Compounds		<250 g/l (2.08 lbs./gal.)	<250 g/l (2.08 lbs./gal.)
Recommended Dry Film Thickness (DFT) Per Coat		1.5-2.5 mils (37.5-62.5µ)	1.5-2.5 mils (37.5-62.5µ)
Wet Film to Achieve DFT (unthinned material)		4-7 mils (100-175µ)	4-7 mils (100-175µ)
Theoretical Coverage at 1 mil DFT (25µ)		575-625 sq. ft/gal. (14.1-15.4 m^2/l)	595-625 sq. ft./gal. (14.6-15.4 m^2/l)
Practical Coverage at Recommended DFT (assumes 15% material loss)		200-350 sq. ft./gal. (4.9-8.6 m^2/l)	200-350 sq. ft./gal. (4.9-8.6 m^2/l)
Dry Times at 70-80°F (21-27°C) and 50% rel. hum.	**Tack-free**	15-60 minutes	15-60 minutes
	Handle	1.0-1.5 hours	1.0-1.5 hours
	Recoat	1.5-2.0 hours	1.5-2.0 hours
Dry Heat Resistance		200°F (93°C)	200°F (93°C)
Moisture Resistance		16 hours	16 hours
Force Cure		5 minutes flash off; 10-20 minutes at 140-160°F (dry to handle after cooling). Dry times are based on 50% relative humidity and 70°F (21°C). Temperatures lower than this and higher humidities will extend dry time.High humidity, moisture or rain can cause blistering if subjected to these conditions before 16 hours at 70°F (21°C) and 50% relative humidity.	
Shelf Life		5 years (protect from freezing)	5 years (protect from freezing)
Safety Information	**Contains**	No lead has been deliberately added	
	Warning!	**PROTECT FROM FREEZING. MAY CAUSE EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. FOR INDUSTRIAL OR COMMERCIAL USE ONLY. SEE THE PRODUCT MATERIAL SAFETY DATA SHEET (MSDS) AND LABEL WARNINGS FOR ADDITIONAL SAFETY INFORMATION.**	

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.

RUST-OLEUM®
INDUSTRIAL BRANDS

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