

RUST-OLEUM®



3100 SYSTEM SPEED-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.

The 3100 System Enamels comply 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 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 |

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.

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.



TECHNICAL DATA

2500 SYSTEM DTM 250 VOC ALKYD ENAMEL

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 | Atomizing 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

Rating 1-10, 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.



TECHNICAL DATA

2500 SYSTEM DTM 250 VOC ALKYD 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% Relative Humidity | 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 humidity 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 | | 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.