



RUST INHIBITING DIRECT TO METAL PRIMER

Sentinel DTM is a water-based, rust-inhibiting, corrosion-resistant, direct-to-metal (DTM) coating for use on ferrous and non-ferrous metal. DTM is formulated with an advanced resin system that is effective to reduce rust because it is both humidity and water-resistant. DTM can be used as a primer for surfaces exposed to general industrial and atmospheric conditions, and has utility as a finish coat with stain blocking properties in top coat applications. DTM has excellent resistance to solvent and water solutions (e.g., a range of detergents), as well as a broad range of mild alkali and acids. DTM does not contain the flammable solvents found in alkyd and other rust inhibiting paints. DTM is a single-component product for light to medium duty service. DTM accepts water-based topcoats including Sentinel Lead Encapsulant and Sentinel BPE Asbestos Encapsulant.

Surface Preparation

Without proper surface preparation, a coating will not adhere properly to the substrate and the system will fail. Surfaces should be clean and dry. Remove all oil, grease, dirt, mold, mildew, loose or scaling paint, rust, mill scale and other foreign matter. Perform a test application whenever possible.

Follow the Joint Surface Preparation Standards (JSPS) now maintained and updated by AMPP. These standards are widely accepted and used by contractors and organizations for metal preparation. These standards were originally promulgated by NACE International and the Society for Protective Coatings (SSPC). NACE and SSPC have merged to form the Association for Materials Protection and Performance (AMPP).

Minimum for DTM is SSPC-SP-2: Hand Tool Cleaning. This preparation level involves non-power handheld tools. Hand tool cleaning is intended to remove all loose (as opposed to adherent) mill scale, rust, paint, and other contaminants that may be detrimental to a coating application.

According to SSPC, "adherent" contaminants are those that can't be removed by lifting them off with a dull putty knife. SSPC-SP-3 Power Tool Cleaning is preferred when it can be performed and may be required for certain encapsulation products, and other long-warranty finishes. Ideal preparation level is NACE No. 3/SSPC-SP-6: Commercial Blast Cleaning No. 3/SP-6, but project circumstances may preclude abrasive media blasting.

STEEL, IRON, FERROUS METAL: Follow Surface Preparation above. After preparation, prime with 2 coats DTM. Pay careful attention to flash rusting of ferrous metal rendered bare by preparation. Generally apply 2 DTM coats to all surfaces. Attempts to save product by spot priming extensively adds often unneeded complexity, and increases probability of missed (unprimed) areas causing rust to return. Even pinholes that run down to the ferrous metal can cause bleeding up to the surface. Instruct applicators: the 1st coat catches the rust; the 2nd coat caps it.

When, after preparation, the surface is still comprised largely of solid rust, consider switching to an alkyd phenolic red oxide metal primer.

Pre-coat/"Stripe" coat crevices, welds, and sharp angles to prevent early failure in these areas.

GALVANIZED METAL, ALUMINUM: Surface oil should be wiped off with mineral spirits and a clean rag. Remove all oil, grease, dirt, oxide and other foreign material per SSPC-SP1. Galvanized should have weathered and aged 6-8 months.

PREVIOUSLY PAINTED SURFACES: Prepare ruptured or scratched surfaces as for unfinished metal. Spot prime bare ferrous metal as conditions dictate/and as described above. Degloss if necessary. Apply a test area, allowing DTM to dry one week before testing adhesion. If adhesion is poor, additional abrasion of the surface and/or removal of the previous coating may be necessary. Retest surface for adhesion. Conduct a tape adhesion test to account for possible intercoat delamination.

Product Preparation

Separation in paints and coatings is normal. Ensure the product is mixed thoroughly, to an uniform color and texture with a drill and mixing paddle.

FORMULA



RUST INHIBITING DIRECT TO METAL PRIMER



Product Application

Apply uniformly.
Brush: Nylon or polyester synthetic bristle
Roller: Synthetic fiber 1/4"-1/2"

Note: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance. For best results on rusty surfaces, always apply first coat by brush.

Airless Spray Settings:
Reducer: Water (no more than 8oz/gallon)
Pressure: 2000-3000 P.S.I.
Tips: .015 to .019 reversible tips

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Clean Up

Clean painting tools with warm soapy water while product is still wet. Any spills or splatters should be cleaned up immediately with a wet, soapy cloth. Dried coating may be removed using Sentinel 206 Peroxy Strip Paint and Coatings Stripper or other commercially available paint strippers.

Warranty

Sentinel Products Inc. warrants this product to perform satisfactorily when used in accordance with the label directions. Sentinel Products Inc. will replace the product or refund the purchase price in the event this product is proven defective, which shall be the exclusive remedy under the warranty. Liability for consequential damages is specifically excluded. No other warranties expressed or implied are given.

TEST DATA

Sentinel DTM Rust Inhibiting Direct to Metal Primer Surface Burning Characteristics (ASTM E 84):

Flame Spread Index: 10 (Class A rating)
Smoke Developed Index: 0 (Class A rating)

The ASTM E 84 was performed by a Nationally Recognized Testing Laboratory (NRTL). This test is parallel to the UL 723 test. The product was applied at a coverage rate of 80 sq. ft. per gallon on inorganic reinforced cement board. The flame spread may vary when applied over other surfaces.

Sentinel DTM meets NFPA 90A and 90B 25/50 requirements.

Sentinel DTM meets LEED requirements for IEQ Credit 4.2 low emission materials, paints and coatings.

Sentinel DTM meets the 21CFR 189 Substance Prohibited for use in Human Food Requirements.

Sentinel DTM is formulated to be applied over most building materials, metals, and plastics. Sentinel DTM has been tested for CPVC fixture compatibility by Spears Manufacturing. Contact Spears at 800-862-1499 for compatibility information.

SPECIFICATIONS

Physical State:	Liquid
Appearance:	Opaque
Color:	White
Odor:	Low
pH:	8.0 - 9.0
Flash Point:	>199.4°F
V.O.C. Content:	<75 g/L (calc.)*
Viscosity:	95 - 110 KU
% Solids by Weight:	36.69%
% Solids by Volume:	28.64%
Density:	9.4 pounds/gallon
Gloss:	0.0 - 4.9 (Flat)
Shelf Life:	24 Months
Coverage Rate:	150 - 230 sq. ft. per gallon depending on substrate.

Dry Time @70°F,	Dry to Touch: 1 hr
50% RH:	Recoat with DTM: 6 hrs
	Recoat with other water based coatings: 24 hours
	Full Cure: 24 hours

