

HIGH PERFORMANCE

TECHNICAL DATA

Product Description

Finium DTM-AT uses advanced, self-crosslinking acrylic technology to create a direct-to-metal, semi-gloss primer-finish. Formulated with an innovative curing mechanism providing early moisture resistance, tenacious adhesion, and superior corrosion protection, Finium protects against costly deterioration. The exceptional gloss and color retention of Finium minimizes maintenance costs while enhancing the appearance of the substrate. Finium DTM-AT offers corrosion protection similar to most traditional solventborne coatings.

Intended Uses

Apply to:

- Interior or exterior surfaces
- Ferrous metal
- Galvanized metal
- Composites
- Aluminum
- Masonry surfaces
- Zinc rich products

Protects:

- Tanks
- Equipment
- Conveyors
- Structural or support steel
- Processing plants
- Material handling facilities
- Power generating plants

The above are general recommendations and not intended to limit the use of Finium DTM-AT. Test areas are always recommended to confirm results.
NOT INTENDED FOR IMMERSION SERVICE.

Physical Properties

Resin Type	Advanced Self-Crosslinking Acrylic
Finish/Sheen	Semi-Gloss, 30–45 @ 60°
Colors	White MS-1650, Gray MS-0659
Bases	White Base MS-1651, Deep Base MS-1653, Neutral Base MS-0654 Tintable in "ACS".
Solids by Weight	52%
Solids by Volume	40%
Theoretical Coverage*	641 ft ² /gal @ 1 mil
Dry Film Thickness / Coat	2.0–3.0 mils (50–75 microns)
Wet Film to Achieve DFT	5.0–7.5 mils (125–187.5 microns)
Coverage at DFT*	213–320 ft ² /gal
VOCs	0.79–0.83 lbs./gal (95–100 grams/liter)
Thinning	DO NOT THIN
Clean-up Solvents	Water
Drying Time**	Set to Touch: 30 minutes to 2 hours at 70°F (21°C) and 50% Relative Humidity Recoat: 2–4 hours at 70°F (21°C) and 50% Relative Humidity
ASTM D1640 - 83 Reapproved 1989	

* Coverage rates are estimates based on the products volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity and texture.

** Dry times vary with surface temperature, air movement, humidity and film thickness.

Performance Characteristics

Finium meets or exceeds the following performance testing criteria:

Test Name	Test Method	Results
Abrasion Resistance	ASTM D 4060, CS-17 Wheel 1kg Load, 1000 Cycles	123 mg loss
Cyclic Weathering	ASTM D-5894 - 4,300 hours	no blistering, face rust rated 10, 3–4 mm scribe creepage
Impact Resistance	ASTM 2794	Direct 160 in./lbs.
Heat Resistance	ASTM D 2485 High Temperature Service	Passes at 250°F (121°C)
Pencil Hardness	ASTM D 3363	B
Corrosion Resistance	ASTM B 117-94 Salt Spray (Fog) Test - 168 hours	no face blistering, no face rust, 1 mm scribe creepage

Surface Preparation

All surfaces must be clean, sound, dry and free of all dirt, dust, wax, oil, grease, chalk and any other contamination that would interfere with new coating adhesion. Bare surfaces must be properly prepared. See "System Selector" for appropriate primer to use depending on the substrate.

Masonry Surfaces: (Poured Concrete, Concrete Block) New concrete must cure for a minimum of 30 days at 72°F (22°C) prior to coating application. Level all surface projections and mortar spatters by stoning. Rake mortar joints clean and remove all soluble salts. Finium is self-priming on masonry surfaces; Additional primer recommendations can be found by seeing "System Selector."

Ferrous Metal Surfaces: Abrasive blast new steel to SSPC-SP-6, Commercial Blast Cleaning. Use proper abrasive to achieve an average of 1.5 to 2.0 mil profile. Blasted surfaces should be primed before flash rusting occurs. If blasting is not practical, remove loose rust and mill scale with hand or power abrading tools as per SSPC-SP-2, Hand Tool Cleaning and SSPC-SP-3, Power Tool Cleaning.

New Galvanized & Aluminum Surfaces: Remove surface contamination or passivators by scrubbing with a cleaning and etching solution or blast per SSPC-SP-7, Brush-Off Blast Cleaning.

Weathered Galvanized & Aluminum Surfaces: Power or hand wash with detergent and rinse thoroughly. The surface must be dull and have a profile. Use a cleaning and etching solution if needed or blast per SSPC-SP-7, Brush-Off Blast Cleaning.

Previously Painted Metal Surfaces: Power or hand washing is recommended to remove contamination. If oil or grease is present, use of a cleaner/degreaser is required. All cleaning residue must be completely rinsed from the surface. Allow to dry. Remove all loose coatings, rust and corrosion by scraping, sanding or other abrading method as per SSPC-SP-2, Hand Tool Cleaning and SSPC-SP-3, Power Tool Cleaning or abrasive blast as per SSPC-SP-6, Commercial Blast Cleaning. Use sandpaper to dull slick, glossy and/or non-porous surfaces with sandpaper.

Mildew: Remove by using a solution of one part household bleach and three parts water. Apply to mildewed area and scrub. Allow solution to remain on the surface for 3 to 5 minutes and then rinse completely and allow to dry before coating application.

Application

Stir material prior to application. Intermix tinted containers to ensure color uniformity of all material. Protect product from freezing prior to and during application. Minimum surface and air temperature required for application is 50°F (10°C) and at least 5°F (3°C) above the dew point. Curing is affected by temperature, humidity and air movement. The minimums must be maintained for at least eight (8) hours in order to achieve proper film formation. Application at elevated temperatures, wind conditions, and/or low humidity may require special application procedures to achieve proper film formation. When Finium is used as a rust-inhibitive primer on blasted or pitted steel, sufficient material must be applied to completely cover surface profile. Abrasive blasted steel with blast profile of 1.5 to 2.0 mils should have a minimum of 2 coats of primer at 2.0 to 3.0 mils DFT per coat.

Brush or Roller: A good quality synthetic brush will make application easier. Select a roller cover suited for the texture of the surface to be coated. Apply product in full even coats. Maintain a wet edge. To ensure adequate film build, two coats are recommended when applying by brush or roller (see the drying times chart for recoat period).

Airless Spray: Flush airless lines with water. Equipment must be clean prior to start. Apply the product in even coats and maintain a wet edge. Use multiple passes to achieve film build. Allow the product to dry between coats.

Tip Orifice	Atomizing Pressure	Material Hose ID	Manifold Filter
0.011" to 0.017"	2800–3000 PSI	1/4" or 3/8"	60 mesh

Packaging

Shipping Weight

Product	1 Gallon	5 Gallon	Product	1 Gallon Kit	5 Gallon Kit
Finium DTM-AT S/G	1 Gallon Pail	5 Gallon Pail	Finium DTM-AT S/G	11.35 lbs. (5.15 kg)	55.37 lbs. (25.12 kg)

Safety Precautions

***WARNING!** If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Paint products contain chemical ingredients, which are considered hazardous. Prior to use, read container label warnings and the current Safety Data Sheet for important health and safety information. Insure these instructions are practiced during product application and cure. **Keep out of the reach of children.**

Safety Data

“Safety Data Sheets” are available from your Diamond Vogel representative or the Diamond Vogel website at www.diamondvogel.com. Prior to use of this product, obtain and review the Safety Data Sheet for health and safety information. Read and observe all precautionary notices on container labels.

Limited Warranty

The technical data and suggestions for use contained in this document are true and correct to the best of our knowledge at the date of issuance. The statements of this document do not constitute a warranty, expressed or implied, as to the performance of these products. Since Diamond Vogel does not control the application of its products, or the condition of the surfaces to which they are applied, Diamond Vogel’s liability will under no circumstances exceed replacement of the product. **All technical information is subject to change without notice.**

Additional Information

Cautions and Warnings information is located on the back panel of each product label.
For current information regarding VOC regulations for specific geographical regions, please contact Technical Service at Diamond Vogel Corporate Headquarters, (Contact information is located at the bottom of the page).