THE SHERWIN-WILLIAMS COMPANY

INDUSTRIAL & MARINE COATINGS

Industrial and Marine Coatings

EnviroSpec™

DTM ACRYLIC PRIMER/FINISH

B66W1

PRODUCT INFORMATION

Revised 2/03

PRODUCT DESCRIPTION

DTM ACRYLIC PRIMER/FINISH is a 100% acrylic emulsion, waterborne, corrosion resistant coating for both new construction and industrial maintenance applications. It can be used as a primer under most water based topcoats or alone as a primer/topcoat system. It develops excellent early moisture resistance and has excellent exterior durability. It can be used directly over numerous substrate types.

- Chemical Resistant
- Fast dry
- Flash/Early Rust Resistant
- Suitable for use in USDA inspected facilities

RECOMMENDED USES

For use over prepared:

- Steel
- Aluminum
- Concrete
- Galvanizing
- Masonry
- Zinc rich primers

Examples:

- Bar Joists
- New Construction
- Structural Steel
- Steel Deck Ceiling
- Piping
- Tanks

PRODUCT CHARACTERISTICS

Finish: Flat

Color: White

Volume Solids: 46% ± 2%

Weight Solids: 61% ± 2%

VOC (EPA Method 24): 138 g/L; 1.15 lb/gal

Recommended Spreading Rate per coat:

Wet mils:	5.0 - 10.0
Dry mils:	2.5 - 5.0
Coverage:	150 - 290 sq ft/gal approximate

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 6.0 mils wet @ 50% RH:

	@ 55°F	@ 77°F	@ 120°F
To touch:	1 hour	40 minutes	20 minutes
Tack free:	6 hours	4 hours	2 hours
To recoat:	8 hours	4 hours	2 hours
To cure:	45 days	30 days	14 days

Drying time is temperature, humidity, and film thickness dependent.

Shelf Life: 36 months, unopened, at 77°F

Flash Point: >200°F, PMCC

Reducer/Clean Up: Water

PERFORMANCE CHARACTERISTICS

System Tested: (unless otherwise indicated)
Substrate: Steel
Surface Preparation: SSPC-SP10
1 ct. DTM Acrylic Primer/Finish @ 3.0 mils dft

Abrasion Resistance:
Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load
Result: 225 mg loss

Accelerated Weathering, 2 coats:
Method: ASTM D4587, QUV-A, 4,000 hours
Results: passes

Adhesion:
Method: ASTM D4541
Result: >500 psi

Corrosion Weathering:
Method: ASTM D5894, 12 cycles, 4,032 hours
Result: Rating 9 per ASTM D610 for rusting
Rating 10 per ASTM D714 for blistering

Direct Impact Resistance:
Method: ASTM D2794
Result: >140 in. lbs.

Dry Heat Resistance:
Method: ASTM D2485
Result: 250°F

Exterior Durability:
Method: 1 year, 45° South
Result: Excellent

Flexibility:
Method: ASTM D522, 180° bend, 1/4" mandrel
Result: Passes

Moisture Condensation Resistance: (2 coats)
Method: ASTM D4585, 100°F, 500 hours
Result: Excellent

Pencil Hardness:
Method: ASTM D3363
Result: H

Salt Fog Resistance: (2 coats)
Method: ASTM B117, 500 hours
Result: Excellent

Provides performance comparable to products formulated to federal specification: Mil-P-28577B, TT-P-1975, and Paint Specification: SSPC-Paint 23.

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RECOMMENDED SYSTEMS

Steel:
2 cts. DTM Acrylic Primer/Finish @ 2.5 - 5.0 mils dft/ct

Steel:
1 ct. DTM Acrylic Primer/Finish @ 2.5 - 5.0 mils dft
2 cts. DTM Acrylic Coating @ 2.5 - 4.0 mils dft/ct
or Metalatex Semi-Gloss, @ 1.5 - 4.0 mils dft/ct
or Water Based Catalyzed Epoxy @ 2.5 - 3.0 mils dft/ct
or SherCryl HPA @ 2.5 - 4.0 mils dft/ct

Aluminum, Galvanized, and Masonry:
2 cts. DTM Acrylic Primer/Finish @ 2.5 - 5.0 mils dft/ct

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or Water Based Catalyzed Epoxy @ 2.5 - 3.0 mils dft/ct
or SherCryl HPA @ 2.5 - 4.0 mils dft/ct

Concrete and Masonry:
1 ct. Heavy Duty Block Filler @ 10.0 - 18.0 mils dft
2 cts. DTM Acrylic Primer/Finish @ 2.5 - 5.0 mils dft/ct

Previously Painted Surfaces:
1-2 cts. DTM Acrylic Primer/Finish @ 2.5 - 5.0 mils dft/ct

The systems listed above are representative of the products use, other systems may be appropriate.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Do not use hydrocarbon solvents for cleaning.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel:	SSPC-SP2
Aluminum:	SSPC-SP1
Galvanizing:	SSPC-SP1
Concrete & Masonry:	Cured, clean, dry, sound

TINTING

Tint with Blend-A-Color Toner or EnviroToner at 75% tint strength, 2 oz/gal maximum. Better performance will be achieved with EnviroToners. Product is not controlled for tint strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

Tinting can affect the flash/early rust resistance of the coating.

APPLICATION CONDITIONS

Temperature:	55°F minimum, 120°F maximum (air, surface, and material) At least 5°F above dew point
Relative humidity:	85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:	1 and 5 gallon containers
Weight per gallon:	11.46 ± 0.2 lb

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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APPLICATION BULLETIN

Revised 2/03

Surface Preparation

Surface must be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint and other contaminants to ensure adequate adhesion.

Do not use hydrocarbon solvents for cleaning.

Iron and Steel: Minimum surface preparation is Hand Tool Cleaning per SSPC-SP2. Remove all oil and grease from the surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6. Self priming.

Aluminum: Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1. Self priming.

Concrete Block: Surface should be thoroughly clean and dry. Air, material and surface temperatures must be at least 55°F before filling. Use Heavy Duty Block Filler. The filler must be thoroughly dry before topcoating.

Galvanized Metal: Allow to weather a minimum of 6 months prior to coating. Solvent Clean per SSPC-SP1. When weathering is not possible or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, brush blasting is necessary to remove these treatments. Self priming.
Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2.

Masonry: All masonry must be free of dirt, oil, grease, loose paint, mortar, masonry dust, etc. Poured, troweled, or tilt-up concrete, plaster, mortar, etc. must be thoroughly cured at least 30 days at 75°F. Form release compounds and curing membranes must be removed by brush blasting. Self priming. Brick must be allowed to weather for one year prior to surface preparation and painting.

PVC, Fiberglass: Remove all oil, grease, dirt, and other foreign material by Solvent Cleaning per SSPC-SP1. Scuff sand to abrade surface. Test adhesion.

Previously Painted Surfaces: If in sound condition, clean the surface of all foreign material. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface.

Application Conditions

Temperature:	55°F minimum, 120°F maximum (air, surface, and material) At least 5°F above dew point
Relative humidity:	85% maximum

Application Equipment

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compatible with the existing environmental and application conditions.

Reducer/Clean Up: ..... Water

Airless Spray

Pressure	2000 psi
Hose	1/4" ID
Tip	.015" - .019"
Filter	60 mesh
Reduction	as needed up to 12-1/2% by volume

Conventional Spray

Gun	Binks 95
Fluid Nozzle	66
Air Nozzle	63PB
Atomization Pressure	60 psi
Fluid Pressure	25 psi
Reduction	as needed up to 12-1/2% by volume

Brush

Brush	Nylon/Polyester
Reduction	not recommended

Roller

Cover	3/8" woven with phenolic core
Reduction	not recommended

If specific application equipment is listed above, equivalent equipment may be substituted.

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APPLICATION BULLETIN

Application Procedures

Surface preparation must be completed as indicated.

Mixing Instructions: Mix paint thoroughly by boxing and stirring before use.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

Wet mils:	5.0 - 10.0
Dry mils:	2.5 - 5.0
Coverage:	150 - 290 sq ft/gal approximate

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule@ 6.0 mils wet @ 50% RH:

	@ 55°F	@ 77°F	@ 120°F
To touch:	1 hour	40 minutes	20 minutes
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To cure:	45 days	30 days	14 days

Drying time is temperature, humidity, and film thickness dependent.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

Performance Tips

Stripe coat all crevices, welds, and sharp edges to protect against early failure in these areas. For best results on rusty surfaces, always apply first coat by brush. No painting should be done immediately after a rain or during foggy weather.

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

During the early stages of drying, the coating is sensitive to rain, dew, high humidity, and moisture condensation. If possible, plan painting schedules to avoid these influences during the first 16-24 hours of curing.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

DTM Acrylic Primer/Finish is extremely sensitive to hydrocarbon containing solvents. When cleaning the surface per SSPC-SP1, use only an emulsifying industrial detergent, followed by a water rinse. Do not use hydrocarbon containing solvents.

Do not use oil or alkyd topcoats over DTM Acrylic Primer/Finish.

Do not use hydrocarbon solvents for cleaning.

Refer to Product Information sheet for additional performance characteristics and properties.

Clean Up Instructions

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with Mineral Spirits to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using Mineral Spirits.

Safety Precautions

Refer to the MSDS sheet before use.

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