



CORTEC
CORPORATION

Environmentally Safe VpCI®/MCI® Technologies

EcoShield® VpCI®-386 HT Slip Coating

DESCRIPTION

EcoShield® VpCI®-386 HT Slip Coating is a unique high-heat-resistant water-based DTM coating that offers improved surface slip, excellent outdoor weathering, and thermal heat protection. Its complex mixture of organic inhibitors and specialty additives offers protection that competes with most paints and zinc-rich primers. EcoShield® VpCI®-386 HT Slip Coating significantly retards the reaction of metal ionization and repels water, thus protecting against corrosive electrolytes and aggressive environments. This fast-drying thixotropic coating resists sagging and running and is thermally stable when dried in ambient temperatures from -150 to 500 °F (-101 to 260 °C). EcoShield® VpCI®-386 HT Slip Coating offers extended protection in sheltered, unsheltered, indoor, or outdoor conditions. The coating is ultraviolet resistant and gives optimal outdoor performance without cracking or chipping upon prolonged exposure to sunlight. Heat resistant up to 500 °F (260 °C) or more depending on color choice. Available in Clear, Black, or Aluminum.

PACKAGING & STORAGE

EcoShield® VpCI®-386 HT Slip Coating is available in 5 gallon (19 L) pails, 55 gallon (208 L) drums, liquid totes, and bulk.

To ensure best product performance, store in original packaging, indoors, and out of direct sunlight at 40-100 °F (4-38 °C).

Shelf life: 1 year

HIGH PERFORMANCE VpCI® COATINGS



CHARACTERISTICS/TECHNICAL DATA

Volume Solids	31%	
Gloss (ASTM D532)	80+	
VOCs (ASTM D3960)	0.25 lbs/gal (30 g/L)	
Viscosity	Black: 800-1600 cps (6 rpm/#3) Aluminum: 700-3,000 cps (6 rpm/#3) Clear: varies	
Pencil Hardness (ASTM D3363)	HB-H	
Spreading Rate	248.5-497 ft ² /gal (1.0-2.0 mils) 6.10-12.21 m ² /L (25.0-50.0 μm)	
Weight per Gallon	Black: 8.6-8.8 lb/gal (1.03-1.05 kg/L) Aluminum: 8.3-8.8 lb/gal (0.99-1.05 kg/L) Clear: 8.4-8.8 lb/gal (1.01-1.06 kg/L)	
Flash Point	>200 °F (93 °C)	
Recommended DFT	Black: 1.0-2.0 mils (25.0-50.8 μm) Aluminum: 1.0-2.0 mils (25.0-50.8 μm) Clear: 1.0-2.0 mils (25.0-50.8 μm)	
Recommended WFT	3.2-6.45 mils (80.0-161.25 μm)	
Dry to Touch	30 min @ 77°F (25 °C)	
Dry to Handle	1 hr	
Force Dry	15-20 min @ 150 °F (65 °C)	
Full Cure	3-7 days @ 77 °F (25 °C), 55% RH	
Salt Spray (ASTM B117)	CS 1010	500+ hr [†]
	Aluminum	1000+ hr
Humidity (ASTM D1748)	CS 1010	1000+ hr [†]
	Aluminum	1000+ hr
Adhesion (ASTM D3359)	5B	

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Flexibility (ASTM D522)	½" mandrel (1.27 cm)
High Temperature Service (Method A) (ASTM D2485-91)	Pass

1.5 to 2.0 mils (37.5-50.0 µm)

All tests performed after a 7-day cure at ambient temperature

APPLICATION

Surface Preparation

Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, rust inhibitors (except Cortec® approved), or any other surface contamination that could affect adhesion. For production line applications, use VpCI®-440 or similar phosphating pre-treatment. For structural steel applications, Cortec® recommends a minimum of a NACE #3/ SSPC-SP6 commercial blast clean. Consult Cortec® Technical Service and/or test system adhesion prior to full scale application.

A wash primer such as VpCI®-373 Green applied at 0.5-1.0 mils (12.5-25 microns) is recommended before applying the EcoShield® VpCI®-386 to aluminum, galvanized, or plated substrates. Other recommended primers include VpCI®-375, 395, and 396 depending on coating requirements. When solvent-based topcoats are applied over VpCI®-386, compatibility must be checked.

Note: Make sure dew point is more than 5 °F (2 °C) less than air temperature for application. Power agitate to a uniform consistency using a "squirrel cage" type mixer, hand-held drill mixer, or other equivalent method. VpCI®-386 can be applied by spray, roll, brush, or dip.

Typical Equipment Setups

HVLP / Conventional Spray

- Tip 0.02"-0.11" (0.5-2.8 mm) dependent upon pressures and viscosity
- Air Pressure 45-55 psi
- Fluid Pressure 10 psi
- Fluid hose should be ¾" (0.95 cm) I.D. with a maximum length of 50 feet (15.2 m). I.D. fluid hose can be used, but pressures may need to be adjusted. Pot should always have dual regulation and be kept at same elevation as spray gun.

Air Assisted Airless / Airless

- Tip 0.015"-0.035" (0.38-0.89 mm) dependent upon pressures and viscosity
- Pressure 1800-2500 psi
- Hose should be ¾" (0.95 cm) I.D. minimum, but a ¼" (0.64 cm) I.D. whip end section may be used for ease of application. A maximum length of 100 feet (30.5 m) is suggested.

Cleanup

Clean tools/equipment immediately after use with water when paint is still wet. When dry, use Butyl Cellulosolve or MEK. Follow mfg's safety recommendations when using any solvent.

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