



CORTEC
CORPORATION

Environmentally Safe VpCI®/MCI® Technologies

VpCI®-386 HT

DESCRIPTION

VpCI®-386 HT is a unique high-heat-resistant water-based primer/topcoat that offers 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. VpCI®-386 HT 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). VpCI®-386 HT 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

VpCI®-386 HT 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)	0.6 lbs/gal (72 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	198-497 ft ² /gal (1.0-2.5 mils) 4.86-12.21 m ² /L (25.0-67.5 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	
Recoat Time	Dry to touch; sand thereafter	
Force Dry	15-20 min @ 150 °F (65 °C)	
Full Cure	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

VpCI®-386 HT

Adhesion (ASTM D3359)	5B
Flexibility (ASTM D522)	½" mandrel (1.27 cm)
High Temperature Service (Method A) (ASTM D2485-91)	Pass

**All tests performed after a 7-day cure at ambient temperature
†1.5 to 2.0 mils (37.5-50.0 µm)*

APPLICATION

VpCI®-386 HT can be used as a topcoat/primer on carbon steel, cast iron, aluminum, stainless steel, galvanized steel, and copper. A wash primer such as VpCI®-373 Green applied at 0.5-10.0 mils (12.5-25.0 µm) DFT is recommended before applying VpCI®-386 HT to aluminum or galvanized steel.

When solvent-based topcoats are applied over VpCI®-386 HT, compatibility must be checked. VpCI®-386 HT can also be used as a topcoat with VpCI®-374 or VpCI®-395 as a primer.

Note: Make sure air temperature is at least 55 °F (13 °C) and 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: 0.009"-0.021" (0.23-0.53 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). 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 Cellusolve or MEK. Follow mfg's safety recommendations when using any solvent.

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