



VpCI®-386

DESCRIPTION

VpCI®-386 is a fast-drying, water-based acrylic topcoat designed for direct-to-metal (DTM) applications. It provides excellent adhesion to various metal substrates and forms a durable barrier in harsh outdoor, unsheltered environments. VpCI®-386 provides multi-metal protection and superior UV resistance. VpCI®-386 is developed with environmental health and safety in mind with lower VOC levels than traditional industrial paints. VpCI®-386 is weldable and can be used to keep surfaces corrosion free prior to welding. It can be matched to most custom colors.

CHARACTERISTICS/TECHNICAL DATA

Volume Solids	34%
Gloss (ASTM D523)	85+ GU/60°
VOCs (ASTM D3960)	0.7 lbs/gal (84 g/L)
Viscosity	35-45 sec Zahn #5
Pencil Hardness (ASTM D3363)	HB*
Coverage Rate	545.4 ft ² /gal @ 1 mil DFT (13.4 m ² /L @ 25 µm)
Density	8.6 lbs/gal (1.03 kg/L)
Flash Point	Does not flash
Recommended DFT	1.5-3.0 mils (38-76 µm)
Recommended WFT	4.4-8.8 mils (111.8-223.5 µm)
Dry to Touch	30 min
Dry to Handle	1 hr
Recoat Time	1 hr
Force Dry	15-20 min @ 150°F (65°C)
Full Cure	3-7 days
Salt Spray (ASTM B117)	504 hrs*
Humidity (ASTM 1735)	>1008 hrs*†
Adhesion (ASTM D3359)	0/5B

*Test performed with a 2 mil DFT after a 7-day cure at ambient temperature with passing criteria:

- Salt fog: mean creep from scribe ≤2.0 mm & max creep from scribe ≤5.0 mm (ASTM D1654).
- Salt fog & Humidity: blister rating ≤few (ASTM D714), surface rust rating ≥9 (ASTM D610).

†No signs of corrosion after 1,008 hrs.

PACKAGING & STORAGE

VpCI®-386 is available in 5 gallon (19 L) pails and 55 gallon (208 L) metal drums. Keep product from freezing.

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

Shelf life: 2 years

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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 phosphatizing 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 µm) is recommended before applying VpCI®-386 to aluminum, galvanized, or plated substrates. Other recommended primers include VpCI®-375, VpCI®-395, and VpCI®-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, or brush.

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 3/8" (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 3/8" (0.95 cm) I.D. minimum, but a 1/4" (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 EcoLine® Surface Reveal or a solvent-based paint stripper. Follow manufacturers' safety recommendations when using any solvent.

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