

# VpCI®-382 Water Based Urethane Topcoat

## DESCRIPTION

VpCI®-382 is a fast drying, 2K water-based urethane one coat system (topcoat) that provides protection in harsh, outdoor, unsheltered applications. The complex mixture of non-toxic, organic inhibitors offers protection that competes with most paints and zinc-rich primers.

Provides multi-metal protection. Excellent UV resistance (color & gloss retention).

Can be matched to most custom colors.

## PACKAGING & STORAGE

VpCI®-382 is available in 6 gallon (22.6 liter) kits (4 gallons Part A, 2 gallons Part B). Keep product from freezing.

Product shelf life is 1 year.



## CHARACTERISTICS/TECHNICAL DATA

Volume Solids	67.90%
Gloss (ASTM D532)	80+
VOCs (ASTM D3960)	0.02 lbs/gal (2.4 g/l)
Viscosity	50-70 sec #3 Zahn Cup (mixed)
Pencil Hardness (ASTM D3363)	2H
Spreading Rate	1089 sq.ft/gal @1.0 mils DFT (mixed) (26.7sq.m/l @ 25 µm)
Weight per Gallon	11.23 lbs/gal (1.34 kg/l)
Flash Point	>200°F (93°C)
Recommended DFT	1.5-3.0 mils (37.5-75 µm)
Recommended WFT	2.2-4.4 mils (55-110 µm)
Dry to Touch	2.5-3 hrs
Dry to Handle	5-6 hrs
Recoat Time	Dry to touch - 72 hrs, sand thereafter
Force Dry	15-20 min @ 150°F (65°C)
Full Cure	3-7 days
Salt Spray (ASTM B117)	1000 hrs
Humidity (ASTM D1748)	750 hrs
Adhesion (ASTM D3359)	5B
Flexibility (ASTM D522)	1/2" mandrel (1.27cm)

\*All tests performed after a 7 day cure at ambient temperature

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## APPLICATION

### Surface Preparation

Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, rust inhibitors, 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® 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 VpCI®-382 to aluminum, galvanized or plated substrates. Other recommended primers include VpCI®-395 and 396 depending on coating requirements. **Note: Make sure dew point is more than 5°F (2°C) less than air temperature for application.**

### Mix Ratio

4 Part Part A - 4 gal (15l)  
1 Part Part B - 1 gal (3.8l)

Power agitate to a uniform consistency using a "squirrel cage" type mixer, hand-held drill mixer, or other equivalent method. VpCI®-382 can be applied by spray, roll, brush, or dip. When mixing using a pressure pot setup, allow 15-30 minutes of sweat-in time prior to application. Pot life is 2-3 hours. Accelerator W can be used to accelerate cure time at 6 oz. per gallon max.

### Typical Equipment Setups

#### HVLP / Conventional Spray

- Tip .009"-.021" \*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). Pot should always have dual regulation and be kept at same elevation as spray gun.

#### Air Assisted Airless / Airless

- Tip .015"-.035" \*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 Butyl Cellusolve or MEK. Follow mfg's safety recommendations when using any solvent.

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