



# VpCI®-380 Railcar Coating



## PRODUCT DESCRIPTION

VpCI-380 Railcar Coating is a unique, direct to metal (DTM), fluoropolymer modified water-based acrylic. Designed specifically for the railcar industry, the coating also demonstrates excellent adhesion to a wide variety of substrates including ferrous and non-ferrous metals and certain engineered plastics. The complex mixture of nontoxic, organic inhibitors offer protection that can compete with most primer / topcoat systems.

VpCI-380 provides a fast-drying thixotropic coating that exhibits alkyd-like gloss, flow, and leveling properties with good resistance to sag. The hardness and moisture resistance properties make it an excellent choice for air-dry / force-dry industrial finishes. It gives optimal outdoor performance without cracking or chipping upon prolonged exposure to sunlight.

## FEATURES

- Fast-drying / high gloss
- Non-flammable
- UV resistant when dried
- Optimal outdoor performance
- Can be used as one coat system (primer & topcoat)
- Provides multimetal protection
- Good adhesion to ferrous and non-ferrous metals
- Adhesion to some engineered plastics

## METALS PROTECTED

- Carbon steel
- Aluminum\*\*
- Stainless steel
- Galvanized steel\*\*

\*\* A wash primer such as VpCI-373 green applied at 0.5-1.0 mils (12.5-25 microns) may be necessary before applying the VpCI-380 to these substrates. A test area for adhesion is recommended.

## CORROSION RESISTANCE DATA\*

	Dry Film Thickness Mils (Microns)	Hours to Failure
ASTM B-117 (Salt-spray)	4.0-4.5 (100.0-112.5)	1000 +
ASTM D1748 (Humidity)	4.0 - 4.5 (100-112.5)	1000 +
ASTM D870 (Water Immersion) Adhesion		300 hours  5B after 24 hours of recovery

## TYPICAL PROPERTIES\*

Appearance	Liquid, various colors
Density	8.5-9.5 lb/gal (1.01-1.14 kg/l)
Non-volatile Content	37-43%
Dry Film Thickness (per coat)	3.0-5.0 mils (75-125 microns)
Theoretical Spread Rate	168-112 ft <sup>2</sup> /gal (3-5 mils) (4.12-2.75 m <sup>2</sup> /l) (75-125 microns)
Dry to Touch Time	30 minutes @ 77°F (25°C) at 3 mils (75 microns) DFT
Fully Cured	7 days@77°(25°C) 55% RH
Temperature Stability	45°-90°F (7°-32°C)
VOC (ASTM D-3960)	1.6-1.7 lb/gal (0.7-0.8 g/l)
Viscosity	800-4,000 CPS @ 77°F (25°C)**
Gloss (ASTM D532)	80+
Pencil Hardness	H-2H(ASTM D3363)
Adhesion (ASTM D3359)	5B
Flexibility (ASTM D522)	1/2" 180°bend



## APPLICATION

When VpCI-380 is applied in 3-5 mil DFT, it can be used as a topcoat and primer. VpCI-380 can also be used as a topcoat with Cortec's VpCI-395 primer.

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-380 can be applied by spray, flow coat, brush, or dip.

### Conventional Spray

Manufacturer	Gun Model	Tip/Aircap Combination
DeVilbiss	MBC or JGA	704E
Binks	#18 or #62	66PE

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.

## Airless

Manufacturer	Gun Model	Tip/Aircap Combination
Graco	205-591	Bulldog
Binks	Model 500	Mercury 5C
DeVilbiss	JGN-501	QFA-519

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. Best results will be obtained using a 0.013"-0.017" (0.3-0.4 cm) tip at 1200-1700 psi (83-117 bar).

Note: Nylon or Teflon type packings are available from pump manufacturer and are highly recommended.

Note: Similar equipment may be suitable.

## PACKAGING AND STORAGE

VpCI-380 is available in 5 gallon (19 liter) pails, 55 gallon (208 liter) metal drums, liquid totes, and bulk. Keep product from freezing. Product shelf life is 1 year.

## FOR INDUSTRIAL USE ONLY

**KEEP OUT OF REACH OF CHILDREN**

**KEEP CONTAINER TIGHTLY CLOSED**

**NOT FOR INTERNAL CONSUMPTION**

**CONSULT SAFETY DATA SHEET FOR MORE**

**INFORMATION**

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

\*\*Viscosity can be set per customer request.

## LIMITED WARRANTY

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4119 White Bear Parkway, St. Paul, MN 55110 USA  
Phone (651) 429-1100, Fax (651) 429-1122  
Toll Free (800) 4-CORTEC, E-mail info@cortecvci.com  
Internet <http://www.cortecvci.com>

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**Valdamark Limited**  
Unit 13,  
30 The Downs  
Altrincham, Cheshire, WP14 2PX,  
United Kingdom.  
[valdamark@live.com](mailto:valdamark@live.com)  
Tel: +44 (0) 161 706 0388

