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 multimeal 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*
(on carbon steel 1010 Q-panels)

<table>
<thead>
<tr>
<th>Dry Film Thickness</th>
<th>Hours to Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mils ( Microns)</td>
<td></td>
</tr>
<tr>
<td>ASTM B-117 4.0-4.5</td>
<td>1000 +</td>
</tr>
<tr>
<td>(Salt-spray) 100.0-112.5</td>
<td></td>
</tr>
<tr>
<td>ASTM D1748 4.0 - 4.5</td>
<td>1000 +</td>
</tr>
<tr>
<td>(Humidity) 100-112.5</td>
<td></td>
</tr>
<tr>
<td>ASTM D870 (Water Immersion)</td>
<td>300 hours</td>
</tr>
</tbody>
</table>

Adhesion 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 3.0-5.0 mils (75-125 microns)
Theoretical Spread Rate 168-112 ft²/gal (3-5 mils) (4.12-2.75 m²/l)
(75-125 microns)
Dry to Touch Time 30 minutes @ 77°F (25°C) at 3 mils (75 microns) DFT
Fully Cured 7 days at 77°C (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

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Gun Model</th>
<th>Tip/Aircap Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeVilbiss</td>
<td>MBC or JGA</td>
<td>704E</td>
</tr>
<tr>
<td>Binks</td>
<td>#18 or #62</td>
<td>66PE</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Gun Model</th>
<th>Tip/Aircap Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graco</td>
<td>205-591</td>
<td>Bulldog</td>
</tr>
<tr>
<td>Binks</td>
<td>Model 500</td>
<td>Mercury 5C</td>
</tr>
<tr>
<td>DeVilbiss</td>
<td>JGN-501</td>
<td>QFA-519</td>
</tr>
</tbody>
</table>

Hose should be 3/8” (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. 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 preformed after a 7 day cure at ambient tempurture.
**Viscosity can be set per customer request.

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