VpCI®-386 Aluminum

VpCI-386 Aluminum is a unique water-based primer/topcoat that successfully provides protection in harsh outdoor unsheltered applications. The complex mixture of non-toxic, organic inhibitors, and an aluminum pigment offers protection that can compete with most paints and zinc-rich primers.

VpCI-386 Aluminum is superior to many coatings with only inorganic pigments. The resistance has been improved by using a highly corrosion resistant aluminum platelet type pigment with organic corrosion inhibitors. The special combination of additives provides a composite polymer barrier that significantly retards the reaction of metal ionization and repels water. A protective film is adsorbed onto metal surfaces. It protects against corrosive electrolytes and aggressive environments, thus preventing corrosion.

VpCI-386 Aluminum provides a fast-drying thixotropic coating that is resistant to sagging or running, forming a tough non-flammable protective barrier. This dry-to-touch film offers extended protection for sheltered, unsheltered, outdoor, or indoor conditions. Thermally stable when dried from -150°F to 350°F (-78° to 180°C). The coating is ultraviolet resistant. It gives optimal outdoor performance without cracking or chipping upon prolonged exposure to sunlight.

VpCI-386 Aluminum has exceptionally good anti-abrasion qualities, making it easily adaptable to steel grating walkways, steel decks, and numerous other applications where abrasion is to be expected.

**FEATURES**
- Fast-drying
- UV resistant
- Forms non-flammable, protective barrier
- High anti-abrasion performance
- Optimal outdoor performance

**MIXING INSTRUCTIONS**
This coating is supplied in a single component. Power agitate at low speed to a uniform consistency using a “squirrel cage” type mixer, hand-held drill mixer, or other equivalent method.

**APPLICATION**
VpCI-386 Aluminum can be used as a topcoat/primer. When solvent-based topcoats are applied over VpCI-386 Aluminum compatibility must be checked. VpCI-386 Aluminum can also be used as a topcoat with Cortec® VpCI-374 or VpCI-395 as a primer.

Note: Make sure dew point is more than 5°F (2°C) less than air temperature for application and the temperature is at least 55°F (13°C).

VpCI-386 Aluminum can be applied via spray, roller, or brush.

**METALS PROTECTED**
- Carbon steel
- Cast iron
- Aluminum
- Stainless steel
- Galvanized steel
- Copper

VpCI Corporation

[Image of VCI-386 Aluminum coatings and specification chart]
**TEST DATA**

| Salt Spray | 300 hr.* | 1000+ hr. |
| Humidity   | 1000+ hr. | 1000+ hr. |

*1.5 to 2-mils (37.5 to 50 microns)

**Conventional Spray**

- **Manufacturer:** DeVilbiss
  - **Gun Model:** MBC or JGA
  - **Tip/Aircap Combination:** 704E
- **Manufacturer:** Binks
  - **Gun Model:** #18 or #62
  - **Tip/Aircap Combination:** 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:** Graco
  - **Gun Model:** 205-591
  - **Tip/Aircap Combination:** Bulldog
- **Manufacturer:** Binks
  - **Gun Model:** Model 500
  - **Tip/Aircap Combination:** Mercury SC
- **Manufacturer:** DeVilbiss
  - **Gun Model:** JGN-501
  - **Tip/Aircap Combination:** QFA-519

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-386 Aluminum is available in 5 gallon (19 liter), 55 gallon (208 liter), liquid totes, and bulk. Keep product from freezing. Avoid temperatures higher than 75°F (24°C) while in storage.

**TYPICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Medium Grey Aluminum*</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>8.5-9.5 (Neat)</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>8.4-9.0 lb/gal (1.01-1.08 kg/l)</td>
</tr>
<tr>
<td><strong>Non-volatile Content</strong></td>
<td>35-40%</td>
</tr>
<tr>
<td><strong>Fully Cured</strong></td>
<td>7 days at 77°F (25°C) 55% RH</td>
</tr>
<tr>
<td><strong>Dry Film Thickness</strong> (per coat)</td>
<td>1.0-2.5 mils (25-62.5 microns)</td>
</tr>
<tr>
<td><strong>Adhesion</strong></td>
<td>5B</td>
</tr>
<tr>
<td><strong>Theoretical Spread Rate</strong></td>
<td>224-261 ft²/gal (1-2.5 mils)</td>
</tr>
<tr>
<td></td>
<td>5.2-14m²/l (25-67.5 microns)</td>
</tr>
<tr>
<td><strong>Dry to Touch Time</strong></td>
<td>30 minutes @ 77°F (25°C)</td>
</tr>
<tr>
<td><strong>Temperature Stability (Application)</strong></td>
<td>45°F-90°F (7°C-32°C)</td>
</tr>
<tr>
<td><strong>VOC (ASTM D-3960)</strong></td>
<td>1.27 lb/gal (152 g/l)</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>700-3,000 cps (6 rpm/#3)</td>
</tr>
<tr>
<td><strong>Shelf life</strong></td>
<td>12 months</td>
</tr>
<tr>
<td><strong>Temperature Resistance</strong> (Fully Cured)</td>
<td>-150°F to 350°F (-78°C to 80°C)</td>
</tr>
</tbody>
</table>

*limited colors available upon request

**LIMITED WARRANTY**

All statements, technical information and recommendations contained herein are based on tests Cortec Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed. Cortec Corporation warrants Cortec® products will be free from defects when shipped to customer. Cortec Corporation’s obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec Corporation of the claimed defect within six months after shipment of product to customer. All freight charges for replacement products shall be paid by customer. Cortec Corporation shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.

BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH. No representation or recommendation not contained herein shall have any force or effect unless in a written document signed by an officer of Cortec Corporation.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO CASE SHALL CORTEC CORPORATION BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Distributed by:

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

printed on recycled paper 100% post consumer
Cortec® is a trademark of Cortec Corporation. ©2013, Cortec Corporation. All Rights Reserved. Copying of these materials in any form without the written authorization of Cortec Corporation is strictly prohibited.
ISO accreditation applies to Cortec’s processes only.