**PRODUCT DESCRIPTION**

EcoShield® 386 Water Based Coating Powered by Nano VpCi® is an exciting breakthrough in water based coating technology, offering an incredible 1000 hours of salt spray performance at only 1 mil (25 microns) DFT. This unique acrylic based formula uses a complex mixture of nano sized non-toxic organic corrosion inhibitors which provide protection superior to traditional corrosion inhibiting coatings. EcoShield® 386 is an outstanding choice for harsh, unsheltered outdoor applications where corrosion and UV protection are required for long periods of time. The potential industry applications of this cutting edge technology are countless, ranging from industrial, to energy, to oil and gas, to automotive uses!

**FEATURES**

- Fast drying and easy to work with
- Low VOC - less than 0.6 pounds per gallon (68 g/l)
- Applicable via spray, dip, or brushing
- Resistant to sagging or running
- Non-flammable protective barrier
- UV resistance discourages cracking or chipping under extended sunlight exposure
- Can be tinted to match custom colors
- Can be used as a DTM Coating, or as a topcoat over the appropriate primer
- Cold weather (Winterized) version available

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**CHARACTERISTICS/TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume Solids</td>
<td>31%</td>
</tr>
<tr>
<td>Gloss (ASTM D532)</td>
<td>80+</td>
</tr>
<tr>
<td>VOCs (ASTM D3960)</td>
<td>0.6 lbs/gal (68 g/l)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>51 sec+ Zahn #3</td>
</tr>
<tr>
<td>Pencil Hardness (ASTM D3363)</td>
<td>HB-H</td>
</tr>
<tr>
<td>Spreading Rate</td>
<td>497 sq.ft/gal @ 1.0 mils DFT (12.2 m²/l)</td>
</tr>
<tr>
<td>Weight per Gallon</td>
<td>8.58 lbs/gal (1.03 kg/l)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;200°F (93°C)</td>
</tr>
<tr>
<td>Recommended DFT</td>
<td>1.5-3.0 (37.5 - 75 μm)</td>
</tr>
<tr>
<td>Recommended WFT</td>
<td>4.8-9.6 (120 - 240 μm)</td>
</tr>
<tr>
<td>Dry to Touch</td>
<td>30 min</td>
</tr>
<tr>
<td>Dry to Handle</td>
<td>1 hr</td>
</tr>
<tr>
<td>Recoil Time</td>
<td>Dry to touch - 72 hrs, sand thereafter</td>
</tr>
<tr>
<td>Force Dry</td>
<td>15-20 min @ 150°F (65°C)</td>
</tr>
<tr>
<td>Full Cure</td>
<td>3-7 days</td>
</tr>
<tr>
<td>Salt Spray (ASTM B117)</td>
<td>1000 hrs on carbon steel</td>
</tr>
<tr>
<td>Humidity (ASTM D1748)</td>
<td>1000 hrs on carbon steel</td>
</tr>
<tr>
<td>Adhesion (ASTM D3359)</td>
<td>5B</td>
</tr>
<tr>
<td>Flexibility (ASTM D522)</td>
<td>1/2&quot; mandrel (1.27 cm)</td>
</tr>
</tbody>
</table>

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

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**SALT SPRAY (ASTM B117) 1000 Hour Testing**

<table>
<thead>
<tr>
<th>Traditional Water Based Coating at 1 MIL (25 microns)</th>
<th>EcoShield® 386 Water Based Coating Powered by Nano VpCi® at 1 MIL (25 microns)</th>
</tr>
</thead>
</table>
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 Ecoshield® 386 to aluminum, galvanized, or plated substrates. Other recommended primers include VpCI®-375, 395 and 396 depending on coating requirements. When solvent based topcoats are applied over Ecoshield® 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. Ecoshield® 386 can be applied by spray, roll, brush, or dip.

TYPICAL EQUIPMENT SETUPS

HVLP / Conventional Spray

Tip .009-.021 (dependent upon pressures and viscosity)
Air Pressure 45-55 psi (3 bar - 4 bar)
Fluid Pressure 10 psi (.7 bar)
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 (124 bar - 172 bar)
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.

Cleanup

Clean tools/equipment immediately after use with water when paint is still wet. When dry, use Butyl Cellulose or MEK. Follow mfg’s safety recommendations when using any solvent.

PACKAGING AND STORAGE

Ecoshield® 386 is available in 5 gallon (19 liter) pails, 55 gallon (208 liter) metal drums, liquid totes, and bulk. Keep product from freezing(unless using winterized version). 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

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