

EcoShield® VpCI®-380 Water Based Fluoropolymer Topcoat

DESCRIPTION

EcoShield® VpCI®-380 is a fast drying, water-based fluoropolymer modified acrylic one-coat system (topcoat) that can be applied DTM (Direct to Metal) and 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 and gloss retention). Can be matched to most custom colors.

PACKAGING & STORAGE

EcoShield® VpCI®-380 is available in 5 gallon (19 L) pails, 55 gallon (208 L) metal drums, liquid totes, and bulk.

To ensure best product performance, store in original packaging, indoors, and out of direct sunlight at 40-100 °F (4-38 °C).

Shelf life: 1 Year



CHARACTERISTICS/TECHNICAL DATA

Volume Solids	33.90%
Gloss (ASTM D532)	80+
VOCs (ASTM D3960)	1.6 lbs/gal (192 g/L)
Viscosity	58 sec+ Zahn #4
Pencil Hardness (ASTM D3363)	H-2H
Spreading Rate	544 sq.ft/gal @ 1.0 mils DFT (13.35 sq.m/L @ 25 µm)
Weight per Gallon	8.79 lbs/gal (1.05 kg/L)
Flash Point	150 °F (65 °C)
Recommended DFT	3.0-5.0 mils (75-125 µm)
Recommended WFT	8.8-14.7 (220-367.5 µm)
Dry to Touch	30 min
Dry to Handle	2 hr
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)	1000 hrs
Adhesion (ASTM D3359)	5B
Flexibility (ASTM D522)	½" mandrel (1.27 cm)

***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 (except Cortec® approved), or any other surface contamination that could affect adhesion. For production line applications, use VpCI®-440 or similar phosphatizing pre-treatment. Cortec® recommends a minimum of a SSPC-SP1 over painted surfaces. For bare metal applications, Cortec® recommends a NACE #3/ SSPC-SP6. Consult Cortec® Technical Service 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® VpCI®-380 to aluminum, galvanized, or plated substrates. Other recommended primers include VpCI®-375, 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. Power agitate to a uniform consistency using a "squirrel cage" type mixer, hand-held drill mixer, or other equivalent method. EcoShield® VpCI®-380 can be applied by spray, roll, brush, or dip.

Typical Equipment Setups

HVLP / Conventional Spray

- Tip 0.02"-0.11" (0.5-2.8 mm)* 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). 1/4" (0.64 cm) I.D. fluid hose can be used but pressures may need to be adjusted. Pot should always have dual regulation and be kept at same elevation as spray gun.

Air Assisted Airless / Airless

- Tip 0.015"-0.035" (0.38-0.89 mm)* 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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