



CORTEC
CORPORATION

Environmentally Safe VpCI®/MCI® Technologies

VpCI®-391 Water Based Temporary Coating

DESCRIPTION

VpCI®-391 is a fast drying, water-based temporary coating that provides protection in harsh, outdoor, unsheltered applications. Provides multi-metal protection. Excellent UV resistance. Can be matched to some custom colors. Provides a hazy, dry, non-tacky film. Use of VpCI®-391 on weld joints does not negatively impact weld geometry or mechanical properties of the weld. It can be used to keep surfaces corrosion-free prior to welding.

UFI: SD40-N0UF-W00Y-D8KH

PACKAGING & STORAGE

VpCI®-391 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: 2 years



CHARACTERISTICS/TECHNICAL DATA

| | |
|------------------------------|---|
| Volume Solids | 41% |
| Gloss (ASTM D523) | NA |
| VOCs (ASTM D3960) | 0.4 lbs/gal (48 g/L) |
| Viscosity | 1,000-7,000 Centipoise |
| Pencil Hardness (ASTM D3363) | NA |
| Spreading Rate | 658 sq.ft/gal @ 1.0 mils DFT (16.1 sq.m/L @ 25 µm) |
| Weight per Gallon | 8.4 lbs/gal (1.00 kg/L) |
| Flash Point | 212 °F (100 °C) |
| Recommended DFT | 2-3 mils (50-75 µm) |
| Recommended WFT | 4.9-7.3 mils (124-185 µm) |
| Dry to Touch | 30-60 min |
| Dry to Handle | 1-2 hrs |
| Recoat Time | NA |
| Force Dry | 15-20 min @ 150 °F (65 °C) |
| Full Cure | 3-7 days |
| Salt Spray (ASTM B117) | 250 hrs |
| Humidity (ASTM D1748) | 1400 hrs |
| Adhesion (ASTM D3359) | NA |
| 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. 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.

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®-391 can be applied by spray, roll, brush, or dip.

Typical Equipment Setups

HVLP / Conventional Spray

- Tip 0.011"-0.019" (0.28-0.48 mm) dependent upon pressures and viscosity
- Air Pressure 45-55 psi
- Fluid Pressure 10 psi
- Fluid hose should be $\frac{3}{8}$ " (0.95 cm) I.D. with a maximum length of 50 feet (15.2 m). $\frac{1}{4}$ " (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 $\frac{3}{8}$ " (0.95 cm) I.D. minimum, but a $\frac{1}{4}$ " (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 coating is still wet. For removal of VpCI®-391 applied to a metal surface, use a VpCI®-41x Series alkaline cleaner/ degreaser. Follow mfg's safety recommendations when using any solvent.

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