

EcoLine® 3860

DESCRIPTION

EcoLine® 3860 is a fast-drying, water-based acrylic topcoat designed for direct-to-metal (DTM) applications. It provides excellent adhesion to various metal substrates and forms a durable barrier in outdoor, unsheltered environments. EcoLine® 3860 provides multi-metal protection and superior UV resistance. Made with renewable resin technology, EcoLine® 3860 contains 27% USDA certified biobased content.

It is an ideal solution for industries seeking a high-performance coatings solution with a reduced environmental impact. It can be matched to most custom colors.

CHARACTERISTICS/TECHNICAL DATA

Volume Solids	46%
Gloss (ASTM D523/ISO 2813)	85+ GU/60°
VOCs (ASTM D3960)	0.6 lbs/gal (72 g/L)
Viscosity	7,000-12,000 CPS
Pencil Hardness (ASTM D3363/ISO 15184)	HB
Spreading Rate	660.7 ft ² /gal @ 1 mil DFT (16.2 m ² /L @ 30 µm)
Density (ISO 758)	1.03 @ 69°F (20°C)
Density	8.47 lbs/gal
Flash Point	Does not flash
Recommended DFT	1.5-3.0 mils (38-76 µm)
Recommended WFT	2.4-7.4 mils (61-188 µm)
Dry to Touch	40 min
Dry to Handle	1 hr
Recoat Time	1 hr
Force Dry	15-20 min @ 150°F (65°C)
Full Cure	3-7 days
Salt Spray (ASTM B117/ISO 9227)	168 hrs*
Humidity (ASTM 1735/ISO 6270-1)	1000 hrs*
Adhesion (ASTM D3359/ISO 2409)	0/5B

*Test performed with a 2 mil DFT after a 7-day cure at ambient temperature with passing criteria:

- Salt fog: mean creep from scribe ≤2.0 mm & max creep from scribe ≤5.0 mm (ASTM D1654).
- Salt fog & Humidity: blister rating ≤few (ASTM D714), surface rust rating ≥9 (ASTM D610).

PACKAGING & STORAGE

EcoLine® 3860 is available in 5 gallon (19 L) pails and 55 gallon (208 L) metal drums. Keep product from freezing.

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

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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. For structural steel applications, Cortec® recommends a minimum of a NACE #3/SSPC-SP6 commercial blast clean. 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 µm) is recommended before applying EcoLine® 3860 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 EcoLine® 3860, 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. EcoLine® 3860 can be applied by spray, roll, or brush.

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). 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 EcoLine® Surface Reveal or a solvent-based paint stripper. Follow manufacturers' safety recommendations when using any solvent.

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