Crown Paint Company
1801 W. Sheridan
Oklahoma City, OK 73106
Phone: 1-405-232-8580
www.crownpaintok.com

Waterborne Enamel

Technical Data Sheet (TDS)

Product Description

Crown Waterborne Enamel is a single component waterborne DTM topcoat. Corrosion properties of this DTM enamel may be enhanced with P-Series Metal Primers.

Product features:

- Acrylic formula for interior/exterior use
- Easy application & Cleanup
- Direct to Metal (DTM)
- Low odor
- Available in various colors
- Lead, chromate, and heavy metal free
- VOC Compliant

Recommended Uses

Crown Waterborne Enamel is intended for industrial applications; either new build or maintenance.

Industries:

- Oilfield & Energy Service
- Industrial Equipment
- Construction Equipment
- Agricultural equipment
- General Metal applications

Mixing & Thinning

Stir each container thoroughly prior to use.

Crown Waterborne Enamel is packaged at a viscosity requiring little or no reduction for application by brush, roller or airless spray equipment. For other spray methods, refer to Spray Gun Setup section.

Product Characteristics

Typical Physical Properties

Gloss: Semi- Gloss 70+ GU at 60°
Volume Solids Single Component: 34% +/- 2%

VOC Mixed Single Component (Unreduced):
EPA Method 24):
LV166 White: 95 g/l (0.8 lb/gal)
Note: The VOC level will vary per color.

Weight Gallon: 10.5 lbs/gal ± 0.2 lb/gal

Shelf Life: 2 years at 77°F (25°C)
Note: For unopened product.

IMPORTANT NOTE: KEEP FROM FREEZING

Surface Prep

Surfaces to be finished must be clean, dry and free of dirt, oil or any contamination that would adversely affect adhesion, protective properties or appearance of the coating.

Prepare metal surfaces to SSPC-SP2, SSPC-SP3 for normal requirements.

Note: for optimal corrosion resistance and adhesion, iron phosphate treatment is recommended and/or P200 Series Metal Primer.

All other substrates contact your Crown representative.

Application Method

Crown Waterborne Enamel can be applied by conventional air, air-assist airless, airless, or dip. It may also be applied by brush or roller.

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Spray Gun Setup

Feed Type	Fluid Tip	Application Pressures (heel of gun)	Fluid Delivery
Siphon Feed	1.6-1.8 mm	40-50 psi	
Gravity Feed	1.6-1.8 mm	30-40 psi	
Pressure Feed	1.4-1.8 mm	50-60 psi	10-14 oz/min
Air Assist Airless	0.009-0.017”	1,000-1,800 psi	
Airless	0.011-0.015”	1,700-3,000 psi	

Spray Viscosity

80-85 KU at77F	Reduce as necessary*
⟷	
Conventional	Airless

Note: Spraying viscosity and thinning will depend on ambient conditions, spray equipment used, and the desired surface finish.

IF THINNING IS REQUIRED:

Use only water to thin this product.

Film Build

Crown Waterborne Enamel has a recommended film build thickness of:

Wet (unreduced): 3-6 mils wet
(75-150 microns)

Dry: 1.0-2.0 mils dry (25-50 microns)

Theoretical coverage at 1.0 mil (25 microns)
DFT: 545 ft² per gallon at 100% transfer efficiency.

Dry Times

	70°F (21°C)
To Touch	15 - 30 Mins
To Handle	1 Hour
To Recoat	2 Hours
Through Dry	18 Hours

Optimum drying conditions are 60°F to 90°F (16°C to 32°C) at 50% R.H.
Note: Lower temperatures and high humidity will slow the dry time.
Surface must be dry and at least 5°F above the dew point.

Note: Product may also be force cured to enhance dry. Force cure temperatures in the range of 110-180°F may be utilized to accelerate water/solvent evaporation and speed oxidation.

Clean Up

Clean all equipment immediately after use with water. If equipment will not be utilized for an extended period of time, do a final flush with solvent such as mineral spirits.

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Ordering Information (sizing)

Available in Gallon, 5-gallon, 55-gallon drum, and 300 gallon tote.

Custom colors and sizes may be available.

Environmental Conditions

For optimum coating performance product, substrate and ambient temperature should be above 50°F (10°C). To prevent condensation during application the surface temperature must be 5°F (3°C) or more above the dew point at all times.

Note: For use outside this range please contact your Crown Representative.

Specifications

Test	Method	Result
Salt Spray/ Corrosion	ASTM B117	100 hours no field rusting, less than 1/8” creep from scribe 240 hours with w/P236 Primer
Adhesion:	ASTM D3359	5A; 100% B-1000 panel
Impact resistance	ASTM D2794	80 lbs direct 50 lbs reverse
Flexibility	ASTM D522	1/8 mandrel bend: Pass

Safety Precautions

Please refer to all Safety Data Sheets (SDS) before using this product. SDS sheets can be obtained by contacting Crown Paint.