

Chassis Black Undercoater/Enamel

Technical Data Sheet (TDS)

Product Description

Crown Chassis Black Undercoater/Enamel is a fast dry, one component industrial finishing enamel.

Product features:

- Very quick drying and tack free times
- Quick handling time
- Low to No HAPS
- Good corrosion resistance
- Lead, Chrome, and heavy metal free
- Black only

Recommended Uses

Chassis Black Undercoater/Enamel is intended for industrial applications, either new build or maintenance. Chassis Black Undercoater /Enamel is intended for chassis, underbody parts, sucker rods and other metal components that require a cost-effective, protective coating. It is ideal for “production line” environments due to its versatility and quick handling properties.

Industries:

- Oilfield & Energy Services
- Well Service vehicles
- Cranes and Construction Equipment
- Trailers
- Waste and Recycling Industry
- Garbage trucks

Mixing

Chassis Black Undercoater/Enamel is a single component product.

Stir each container thoroughly prior to use.

Product Characteristics

Typical Physical Properties	
Gloss:	High: 85+ GU at 60°
Volume Solids: (Single Component Unreduced) E698 Chassis Black	34% ± 1%
Volume solids will vary by color	
VOC (Unreduced): EPA Method 24 E698 Chassis Black	556 g/l 4.641 lb /gal
VOC content will vary with each color	
Shelf Life:	
Chassis Black Undercoater/Enamel	2 Years
For unopened product (77°F (25°C))	
Weight Gallon: E698 Chassis Black	7.81 ± 0.2lb/gal

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 steel surfaces to SSPC-SP2, SSPC-SP3 for normal requirements.

Note: for optimal corrosion resistance and adhesion, iron phosphate treatment is recommended and/or P300 Series Metal Primer.

For questions regarding other substrates contact your Crown Representative.

Application Method

Chassis Black Undercoater/Enamel can be applied by most spray painting systems including heated systems, dip application and flow coat processes. It can also be applied by advanced application equipment such as turbo disk or bell. Follow recoats times of primer if applied prior to topcoating with Chassis Black Undercoater.

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Note: Not recommended for brush or roller application over large areas. Small touch-up areas may be brushed.

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	9 -17 Thou	1,000-1,800 psi	
Airless	11-15 Thou	1,700-3,000 psi	

Spray Viscosity

Supplied Viscosity - [77°F (25°C)]	
#2 Zahn Cup	20-25 secs.

Note: Material is packaged at a viscosity requiring little or no reduction for application by airless spray equipment.

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

IF THINNING IS REQUIRED:	
Temperature Range	Recommended Thinner
Below 65° F (18° C)	Toluol /TS100
65° F- 80° F (18-27° C)	Xylol /TS105
Above 80°F	Xylol /TS105
Above 80°F: SC-100 or SC-150 can be used as a retarder solvent to reduce dry spray and increase flow and leveling. Limit the level of SC-150 to 5% as a retarder solvent.	
Note: VM&P Naphtha or Mineral Spirits should never be used.	

Film Build

Chassis Black Undercoater/Enamel has a recommended film build thickness of:

Wet: WFT Unreduced	3.0 – 6.0 mils	75 – 150 microns
Dry: DFT	1.0 – 2.0 mils	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	30 Minutes
To Handle	1 Hour
To Recoat	1 Hour
Through Dry	18 Hours

Optimum drying conditions are 60°F to 90°F (16°C to 32°C) at 50% R.H. Lower temperatures and high humidity will slow dry time. Surface must be dry and at least 5°F(3°C) 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 solvent evaporation and speed oxidation.

Clean Up

Clean all equipment immediately after use with xylol, or aromatic solvent for spray guns and line, pots and other equipment.

Follow manufacturer's safety recommendations when using any solvent.

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Ordering Information (sizing)

Package sizes available:
 Aerosol, 1 gallon, 5 gallons, 55 gallon drum,
 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.

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

Specifications

Test	Method	Result
Salt Spray/Corrosion	ASTM B117	240 hours. no field rusting, less than 1/8" creep from scribe 336 hours w/P315
Adhesion:	ASTM D3359	5A; 100% B-1000 panel
Impact resistance	ASTM D2794	20 lbs direct 10 lbs reverse
Flexibility	ASTM D522	1/8 mandrel bend: Pass

Storage Conditions

Storing partially used container:

Pour a small amount of the recommended thinner over the surface. Do not stir. Replace lid securely. Store away from heat or open flame.

Mix thoroughly before reusing.