

Zinc Dust Primer

Technical Data Sheet (TDS)

Product Description

Crown Zinc Dust Primer is fast drying, two-component industrial finishing primer intended for coating a large variety of metal products.

Product features:

- Quick drying
- Rust inhibitive
- Lead, chromate, and heavy metal free
- For use on ferrous metals

Recommended Uses

Crown Zinc Dust Primer is intended for industrial applications; either new build or maintenance. This product meets the performance requirements of TTP-641 Type II Zinc Dust Primer.

It is ideal for “production line” environments due to its versatility and efficiency.

Industries:

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

Mixing

Mix:

3 parts by volume of Zinc Dust primer A [P296A]

1 part by volume of Zinc Dust primer B [P296B]

THIS IS A TWO-COMPONENT COATING, ALWAYS MIX ZINC DUST WITH LIQUID BASE.

Mix thoroughly before and during use with mechanical agitation.

Note: Constant Mixing is required.

Product Characteristics

Typical Physical Properties

Gloss: Flat <10 GU at 60°

Volume Solids Mixed: 58% +/- 2%

VOC Mixed (Unreduced): (EPA Method 24):
P296A/P296B Gray : 318 g/l (2.65 lb/gal)

Note: The VOC level will vary per color.

Weight Gallon: 14.3lbs/gal ± 0.2 lb/gal

Shelf Life:

Component A: 2 years at 77°F (25°C)

Component B: Indefinite at 77°F (25°C)

Note: For unopened product.

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.

All other substrates contact your Crown representative.

Application Method

Crown Zinc Dust Primer can be applied by most spray painting systems including heated, dip and flow-coat processes. It can also be applied by advanced application equipment such as turbo disk or bell.

This product may also be applied with electrostatic and/or heated equipment.

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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	0.009-0.017"	1,000-1,800 psi	
Airless	0.011-0.015"	1,700-3,000 psi	

Spray Viscosity

90-100 KU at 77°F	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:

Cool Weather: Below 65°F (18 °C)

Use: Toluol/TS100

Normal Weather: Below 65°F- 80°F (18 °C-27 °C)

Use: Xylol/TS105

Hot Weather: Above 80°F (27°C)

Use: Xylol /TS105

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 may be used.

Film Build

Crown Zinc Dust Primer has a recommended film build thickness of:

Wet (unreduced): 3-4.5 mils wet (75-100 microns)

Dry: 1.7-2.6 mils dry (42-65 microns)

Theoretical coverage at 1.0 mil (25 microns)
 DFT: 930 ft² per gallon at 100% transfer efficiency.

Dry Times

	70°F (21°C)
To Touch	30 mins
To Handle	1 Hours
To Recoat	1 Hours
Through Dry	8 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.

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 solvent evaporation and speed oxidation.

Topcoating Information

Crown Zinc Dust Primer may be topcoated with the entire Range of Crown Topcoats.

Zinc Dust Primer must be recoated as early as 1 hour; check small area for lifting prior to application.

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Clean Up

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

Follow manufacturer's safety recommendations when using any solvent.

Ordering Information (sizing)

Available in 4 gallon kits

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	240 hours. no field rusting, less than 1/8" creep from scribe 336 hours w/P315 Primer
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.

Safety Precautions

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