

## Hi-Build Epoxy Coating

### Technical Data Sheet (TDS)

#### Product Description

**Crown Hi-Build Epoxy Coating** is a two-component self-priming, high build, polyamide-cured epoxy coal epoxy enamel which can be used in aggressive environments and withstands high physical and chemical abuse.

#### Product features:

- Hi build 2-component epoxy/polyamide
- Tough, abrasion, and chemical resistant
- Excellent flexibility
- Brush, roller, or spray application.
- Interior/Exterior applications.
- Product is lead, chrome, and heavy metal free.

#### Recommended Uses

**Crown Hi-Build Epoxy Coating** is intended for industrial applications; either new build or maintenance.

**Crown Hi-Build Epoxy Coating** is ideal for steel or concrete surfaces in industrial and marine environments.

#### Application Areas:

- Petroleum storage tanks
- Dam gates
- Non-potable applications
- Extreme Duty Structural coating
- Flooring
- Tub and Tiles

**Note: Exterior applications will chalk, but will not detract from other qualities.**

#### Mixing

**Stir each container thoroughly prior to use.**

#### Mix:

1 parts by volume of Crown Hi Build Epoxy [EX225]  
1 part by volume of Crown Epoxy Catalyst [EX216]

#### Product Characteristics

#### Typical Physical Properties

**Gloss:** High 80+ GU at 60°

**Volume Solids Mixed:** 44% +/- 2%

**Pot Life:** 16 Hours at 77°F (25°C)

**VOC Mixed (Unreduced): EX225/EX216**  
(EPA Method 24): 499 g/l (4.2 lb/gal)

**Weight Gallon:** 9.7lb/gal ± 0.2 lb/gal

#### Shelf Life:

Component A: 2 years at 77°F (25°C)

Component B: 2 years 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;

Prepare metal surfaces to SSPC-5 white metal blast for immersion service.

**All other substrates contact your Crown representative.**

#### Application Method

**Crown Hi-Build Epoxy Coating** can be applied by most spray painting systems including heated systems, or more advanced application equipment such as turbo disk or bell. Crown Hi-Build Epoxy Coating may also be brush or rolled.

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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	

**Note: Do not spray catalyzed material with heated spray equipment.**

#### Spray Viscosity

80-85 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:

Recommended Solvent: TS122 Epoxy Thinner

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

#### Film Build

**Crown Hi-Build Epoxy** has a recommended film build thickness of:

**Wet (unreduced): 4-8 mils wet**  
(100-200 microns)

**Dry: 1.8-3.6 mils dry (45-90 microns)**

Theoretical coverage at 1.0 mil (25 microns)  
 DFT: 705 ft<sup>2</sup> per gallon at 100% transfer efficiency.

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#### Dry Times

	70°F (21°C)
<b>To Touch</b>	1 Hour
<b>To Handle</b>	4 Hours
<b>To Recoat</b>	4 Hour
<b>Through Dry</b>	18 Hours
<b>Immersion Service</b>	7 Days

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.

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 Hi-Build Epoxy** is self-priming and may be recoated as early as 4 hours.

#### Clean Up

Clean all equipment immediately after use with TS-122 Epoxy Thinner for spray guns and line, pots and other equipment

Follow manufacturer's safety recommendations when using any solvent.

**Note: Due to limited potlife, never leave catalyzed paint in spray equipment.**

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#### Ordering Information (sizing)

Kits available in gallons and 5-gallon pails.  
Custom 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
Adhesion:	ASTM D3359	5A; 100% B-1000 panel
Impact resistance	ASTM D2794	80 lbs direct 40 lbs reverse
Flexibility	ASTM D522	1/8 mandrel bend: Pass

#### Storage Conditions

##### Storing partially used container Uncatalyzed:

Pour a small amount of the recommended thinner over the surface. Do not stir. Replace lid securely. Mix thoroughly before reusing.

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.