

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 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

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

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

Hi-Build Epoxy is a two component product. 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: (Single Component Unreduced) EX225:EX216 (1:1)	41% ± 2.0%
Volume solids will vary by color	
VOC (Unreduced) Mixed: EPA Method 24 EX225:EX216 (1:1)	497 g/l 4.150 lb /gal
VOC content will vary with each color	
Shelf Life:	
Component A	2 years
Component B	2 years
For unopened product (77°F (25°C))	
Weight Gallon: EX225:EX216 (1:1)	9.7 ± 0.2lb/gal
Pot Life: (77°F (25°C) and 50% RH)	16 Hours

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.

For questions regarding other substrates contact your Crown Representative.

Application Method

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

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

Spray Viscosity

Supplied Viscosity - [77°F (25°C)]	
Stormer Viscometer	80 - 85 KU

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:

Recommended Solvent: TS122 Epoxy Thinner

Film Build

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

Wet: WFT Unreduced	4.5 – 8.5 mils	114 – 216 microns
Dry: DFT	1.8 – 3.5 mils	45 – 90 microns

Theoretical coverage at 1.0 mil (25 microns).
 DFT: 657 ft² per gallon at 100% transfer efficiency.

Dry Times

	70°F (21°C)
To Touch	1 Hour
To Handle	4 Hours
To Recoat	4 Hours
Through Dry	18 Hours
Immersion Service	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 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 (43 - 82 °C) may be utilized to accelerate solvent evaporation and speed oxidation.

Topcoating Information

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.

Ordering Information (sizing)

Package sizes available:
 1 gallon kits, 5 gallon kits

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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
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. 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.