**Coal Tar Epoxy**

**K02000113, Black, Part A**

**K02008430, Hardener, Part B**

**Product Data Sheet**

## DESCRIPTION

Coal Tar Epoxy is a high build, polyamide cured, epoxy coal tar coating, which can be applied at high film thickness in one coat.

### RECOMMENDED USES

For use over prepared steel and concrete in industrial exposures such as:

- Petroleum storage tanks
- Dam gates
- Offshore drilling rigs
- Penstocks
- Liner for clarifiers
- Non-potable water tank and pipe coating
- Marine applications
- Heavy duty structural coating

## SPECIFICATIONS

### RECOMMENDED SYSTEMS

**Concrete or Steel, Atmospheric or Immersion:**

1 ct. Coal Tar Epoxy (K02000113 + K02008430) @ 16.0 - 24.0 mils dft

**Concrete or Steel, Atmospheric or Immersion:**

2 cts. Coal Tar Epoxy (K02000113 + K02008430) @ 8.0 - 12.0 mils dft/ct

**Steel, Atmospheric Only:**

1 ct. Industrial Epoxy Primer (K00023500) @ 2.0 - 2.5 mils dft

1 ct. Coal Tar Epoxy (K02000113 + K02008430) @ 16.0 - 24.0 mils dft

**Aluminum, Atmospheric Only:**

1 ct. Coal Tar Epoxy (K02000113 + K02008430) @ 16.0 - 24.0 mils dft

**Galvanized Metal, Atmospheric Only:**

1 ct. Coal Tar Epoxy (K02000113 + K02008430) @ 16.0 - 24.0 mils dft

### ORDERING INFORMATION

Packaging: 4 gallons mixed

Part A: 3 gallons in a 5 gallon container

Part B: 1 gallon

Weight per Gallon: 10.3 ± 0.2 lb, mixed

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

## SURFACE PREPARATION cont.

### APPLICATION CONDITIONS

Temperature: 50°F minimum, 100°F maximum (air, surface, and material). At least 5°F above dew point.

Relative humidity: 90% maximum

### APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compatible with the existing environmental and application conditions.

**Reducer/Clean-Up:** Epoxy Reducer (K01661000)

**Airless Spray:**

Pressure: 2500 - 3000 psi; Hose: 3/8” - 1/2” ID; Tip: .031”; Filter: None; Reduction: As needed, up to 25% by volume

**Conventional Spray (Bottom Feed Tank Recommended):**

Gun: Binks 95; Fluid Nozzle: 66; Air Nozzle: 63PB; Atomization Pressure: 60 psi; Fluid Pressure: 40 psi; Reduction: As needed, up to 25% by volume

**Brush:** Natural Bristle; Reduction: Not recommended

**Roller:** 3/8” -1/2” woven with phenolic core; Reduction: Not recommended

Note: If specific application equipment is listed above, equivalent equipment may be substituted.

### SURFACE PREPARATION

**Iron and Steel (Immersion Service):** Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is White Metal Blast Cleaning per SSPC-SP5. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (4 mils). Remove all weld spatter and round all sharp edges by grinding to a minimum 1/4” radius. Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

**Galvanized Steel/Aluminum:** Allow to weather a minimum of six months prior to coating. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1 (recommended solvent is VM&P Naphtha (K01661714). Lightly brush blast per SSPC-SP7 to provide a 2 mil profile.

**Concrete:** All surfaces must be cured according to the supplier’s recommendations. Remove all form release and curing agents by sandblasting, shot blasting, mechanical scarification, or suitable chemical means. Patch holes or cracks. Concrete must be free of moisture as much as possible (moisture seldom drops below 15% in concrete). Test for moisture or dampness by taping an 18 inch by 18 inch plastic sheet (4 mils thick) on the bare surface, sealing all of the edges. After a minimum of 16 hours, inspect for moisture, discoloration, or condensation on the concrete or the underside of the plastic. If moisture is present, the source must be located and the cause corrected prior to painting. Brush blasting required for immersion service.

**Iron and Steel (Atmospheric Service):** Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.
APPLICATION cont.

APPLICATION PROCEDURES
• Surface preparation must be completed as indicated.
• Mix contents of each component thoroughly with power agitation. Make certain no pigment remains on the bottom of the can. Then combine three parts by volume of Part A with one part volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated. Re-stir before using.
• If reducer solvent is used, add only after both components have been thoroughly mixed, after sweat-in.
• Apply paint at the recommended film thickness and spreading rate as indicated.

PERFORMANCE TIPS
• Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.
• When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.
• Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.
• Excessive reduction of material can affect film build, appearance, and adhesion.
• Do not apply the material beyond recommended pot life.
• Do not mix previously catalyzed material with new.
• In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Epoxy Reducer (K01661000).
• Coating must be fully cured before placing into immersion service.

Holiday Detection: Use a wet sponge-type detector such as KD Bird Dog or equivalent equipment per manufacturer’s recommendation. Test only cured coating, as solvent entrapment in fresh films may provide false readings.

CHARACTERISTICS

FINISH: Semi-Gloss
COLOR: Black
VOLUME SOLIDS: 68% ± 2%, mixed
WEIGHT SOLIDS: 77% ± 2%, mixed
VOC (Calculated): Unreduced: 306 g/L; 2.55 lb/gal; Mixed Reduced 25%: 430 g/L; 3.59 lb/gal
MIX RATIO: 2 components, premeasured 3:1; 4 gallons mixed
RECOMMENDED SPREADING RATE PER COAT:
Wet mils: 24.0 - 35.0; Dry mils: 16.0 - 24.0; Coverage: 45 - 68 sq ft/gal approximate
Note: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

CHARACTERISTICS cont.

DRYING SCHEDULE @ 77°F @ 29.0 mils wet @ 50% RH:
To touch: 8 - 10 hours
To handle: 48 hours
To recoat: Minimum Maximum
50-60°F 24 hours 72 hours
60-80°F 16 hours 48 hours
80-100°F 8 hours 16 hours
100-120°F 1 hour 6 hours
To cure: 7 days

Note: If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

POT LIFE: 4 hours @ 77°F; 1 hour @ 100°F
SWEAT-IN TIME: 30 minutes @ 77°F; 1 hour @ 50°F
SHELF LIFE: 36 months, unopened @ 77°F
FLASH POINT (Catalyzed): 110°F, PMCC
REDUCER/CLEAN-UP: Epoxy Reducer (166-1000)

PERFORMANCE TESTS
System Tested: (unless otherwise stated)
Substrate: Steel
Surface Preparation: SSPC-SP6
Finish: 1 ct. Coal Tar Epoxy @ 20.0 mils dft
Abrasion Resistance: Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load; Result: 101 mg loss
Adhesion: Method: ASTM D4541; Result: >80 in lbs
Direct Impact Resistance: Method: ASTM G14; Result: >80 in lbs
Dry Heat Resistance: Method: ASTM D2485; Result: 250°F
Flexibility: Method: ASTM D522, 180° bend, 1” mandrel; Result: Passes
Moisture Condensation Resistance: Method: ASTM D4585, 100°F, 1000 hours; Result: No failure
Pencil Hardness: Method: ASTM D3363; Result: 4H
Salt Fog Resistance: Method: ASTM B117, 1000 hours; Result: Excellent
Water Vapor Permeability: Method: ASTM D1653; Result: 0.021 perm-in

Wet Heat Resistance: Method: Non-immersion; Result: 120°F

Note: Provides performance comparable to products formulated to federal specifications: DOD-P-23236A (SH) Class 2. (Replaces MIL-P-23236) Type 1, Class 2, SSPC-Paint 16.

CAUTIONS
Thoroughly review product label for safety and cautions prior to using this product. A Material Safety Data Sheet is available from your local Krylon Industrial Coatings™ Distributor. Please direct any questions or comments to your local Krylon Industrial Coatings™ Distributor.

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