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Epoxy Coal Tar Coating(HY-03K) Technical Data Sheet（TDS）

Epoxy Coal Tar Coating

Product Number：HY-03K

Product Type：Two-Component Epoxy Coal Tar Coating

1.Product Description

This product is a high-performance, two-component epoxy coal tar coating, formulated with epoxy resin as the base, combined with coal tar pitch, anticorrosive pigments, and additives. It offers excellent resistance to water, acids, alkalis, and salt spray, and provides cathodic protection. It is suitable for anticorrosive coatings on steel pipes, storage tanks, and other facilities in underground, underwater, or highly corrosive environments.

2. Main Applications

· Anticorrosive coatings for the bottom of specialized containers, buried pipelines, subsea pipelines, and external surfaces of oil and water transportation pipelines.
· Protective coatings for underwater parts of ships, including below the waterline, hull bottoms, and ballast tanks.
· Anticorrosive coatings for long-term submerged environments, such as wastewater treatment tanks, cooling towers, and the bottoms and inner walls of storage tanks.
· Heavy-duty anticorrosive systems for industrial facilities, including specialized containers, energy storage boxes, bridges, and port machinery.

3.Key Performance Features

· Excellent Water Resistance: Forms a dense coating that does not blister or peel under long-term immersion.
· Resistance to Acids, Alkalis, and Salts: Provides protection against seawater and acidic/alkaline media, suitable for highly corrosive environments.
· Compatible with Cathodic Protection: Works effectively in conjunction with cathodic protection systems.
· High Solids Content: Achieves high dry film thickness in a single coat, reducing the number of application layers.
· Strong Adhesion: Exhibits excellent adhesion to steel surfaces.
· Superior Barrier Properties: Coal tar components provide outstanding resistance to water vapor and oxygen permeation.

Technical Parameters：

Property	Specification	Test Standard / Method
Color	Black	Visual Comparison (Internal Method)
Gloss	Matte	GB/T 9754
Volume Solids	70% ± 2%	ISO 3233 / GB/T 9272
Density	Approx. 1.35 kg/L	ASTM D1475 / GB/T 6750
Mixing Ratio (by weight)	Base : Hardener = 10:1	Internal Method
Typical Dry Film Thickness	120–200 μm	—
Theoretical Coverage	Approx. 3.7 m²/kg (based on 150 μm DFT)	—
VOC Content	≤350 g/L	EPA Method 24 / ISO 11890-2
Flash Point	>25°C	ISO 3679 Method A / ASTM D93
DryingTime(25° C,50% RH)	Surface Dry: ≤2 h; Through Dry: ≤24 h; Full Cure: 7 days	ASTM D1640 / GB/T 1728

4.Application Instructions

· **Primer:** Epoxy Zinc-Rich Primer 60 (YH-8002) / Epoxy Coal Tar Primer (HY-03K, self-compatible)
· **Topcoat:** Epoxy Coal Tar Topcoat (HY-03K, self-compatible)
· **Recommended Total Dry Film Thickness (DFT):** Primer: 50–80 μm +Topcoat: 120–200 μm +Total DFT ≥ 200 μm

5.Surface Preparation

- **Steel Substrate:** Abrasive blast to Sa 2½ grade, achieving a surface profile of 40–75 μm.
- **Previous Coatings:** Ensure the primer is fully cured, and the surface is clean, dry, free of oil, grease, and dust.

6.Application Guidelines

Item	Requirements
Mixing	Stir the base coat thoroughly with a power mixer. Gradually add the hardener at a weight ratio of Base : Hardener = 10:1. Mix thoroughly until uniform and allow to mature for 10–15 minutes before use.
Pot Life (25°C)	4 hours. Do not use after this period as the mixture will gel.
Thinner	Epoxy-specific thinner (recommended: YH-301Y)
Thinning Ratio	Airless Spray: 5–15%; Brush/Roller: 0–10%
Airless Spray	Nozzle size: 0.48–0.58 mm; Pressure: 15–20 MPa
Brush/Roller	Suitable for small area touch-ups and corners; ensure uniform film thickness.

7.Safety and Precautions

· Ensure thorough mixing before use to avoid uneven hardener distribution, which may result in incomplete curing.
· Application environment: temperature above 5°C, relative humidity below 85%, and substrate temperature at least 3°C above the dew point.
· Avoid outdoor application during rain, snow, heavy fog, or strong winds.
· This product contains organic solvents and coal tar; ensure good ventilation during application and wear appropriate personal protective equipment.
· For two-component products, mix only the amount required and use within the specified pot life.
· If the maximum recoat interval is reached, the existing coating should be lightly abraded to ensure proper intercoat adhesion.

8.Packaging, Storage and Shelf Life

· Packaging:
Base (Part A): 20 kg per drum (approx. 14.8 L)
Hardener (Part B): 2 kg per drum (approx. 1.5 L)
Note: Volume calculated based on density 1.35 kg/L; actual volume may vary slightly due to temperature or other factors.
· Storage Conditions: Store in a cool, dry, and well-ventilated area, away from fire and heat sources.
· Shelf Life: 12 months when unopened and stored in the original packaging at 5–35°C.

Disclaimer：
All information provided in this Technical Data Sheet is based on our typical test data and experience. Actual performance may vary depending on application conditions, substrate preparation, and application methods. It is recommended to conduct a small-scale trial or consult our technical personnel before use. We reserve the right to modify the technical data without prior notice.

Technical Data Sheet

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