



# TEK E-COAL 90

## Coal Tar Epoxy Protective Coating

### Product Description

A two component, high build polyamide cured, coal tar epoxy coating designed for protection of steel and concrete in immersion services and structures exposed to - corrosive environments including salt and fresh water and sewage.

### Uses

- Splash zone areas of offshore platforms and drilling rigs
- Pilling and bridges and tank lining
- Sewage and water treatment plant tanks
- Sewage pipes
- Pipelines (interior and exterior)
- Marine applications
- petroleum storage tanks
- Not recommended for exposure to strong acids or immersion in strong solvents
- Not use for potable water tanks

### Advantages

- Pre-weighed units
- Flexible
- Good adhesion to concrete and steel
- Good abrasion resistant
- Good resistance against chemically polluted water
- High chemical resistant
- Impact resistant

### Standard Compliance

- SSPC - Paint16
- BS 5493

### Technical Data

Base	Coal Tar epoxy	
Color	Black	
Mixing ratio (A:B) by weight	4:0.9	
Mixed density + 5% thinner	1.30 kg/l at 25°C	
Weight solids (A+B+5% thinner)	87±2%	
Pot life	4hours@ 25°C; 2hours at 32°C	
Tack free time	7 hours (25°C, 50% R.H.)	
Over coating interval	Min	Max
10-15°C	24 hours	72 hours
15-26°C	16 hours	24 hours
26-38°C	8 hours	16 hours
Recommended dry film thickness (DFT) per coat	200-250µm	
Wet film to Achieve DFT 275-325µm	Theoretical coverage at (20µm) DFT	27m <sup>2</sup> /kg
Practical coverage at recommended DFT (assumes 15% material loss) per coat	2.6-3.1m <sup>2</sup> /l or 2.0-2.4 m <sup>2</sup> /kg	
Full cure after	7days at 25°C	

### Performance characteristics

**Pull off Adhesion (on concrete):** >3.2N/mm<sup>2</sup>  
 Method: ASTM D 4541  
 2 coats of material, 400µm DFT  
 And 1 coat of material, 200µm DFT

**Cross cut-knife (on steel plate):**  
 5A Method: ASTM D 3359  
 Cleaned steel, 2 coats of material, 400µm DFT

**Impact Resistance (direct):** No defects and crack  
 Method: ASTM D 2794  
 Cleaned steel, 2 coats of material, 400µm DFT

**Salt fog exposure:** No blistering rusting or delaminating  
 Method: ASTM B 117, 1000-hour exposure  
 Cleaned steel, 2 coats of material, 400µm DFT

**Water Adsorption:** less than 0.2%  
 Method: ASTM D 570  
 Cleaned steel, 2 coats of material, 400µm DFT

**Alkali Resistance:** No blistering, rusting or delaminating  
 Method: ISIRI 4042 (5% NaOH)  
 Cleaned steel, 2 coats of material, 400µm DFT

**Acid Resistance:** No blistering, rusting or delaminating  
 Method: ISIRI 4042 (5% H<sub>2</sub>SO<sub>4</sub>)  
 Cleaned steel, 2 coats of material, 400µm DFT

# FARCO TEK E-COAL 90

## Method of Use

### Surface Preparation

Surface must be dry, clean and in sound condition.

Remove oil, dust, dirt, mill scale or other foreign substance to ensure good adhesion. Minimum surface preparation methods to be followed for:

1. Iron and steel: For immersion service, abrasive blasting to a minimum near white grade (SSPC- SP-10, NACE2) with a 50-75µm surface profile is recommended for optimal performance.

All weld spatter must be removed along weld seams, rough welds should be ground smooth, and all sharp edges should be ground to a smooth radius.

For non-immersion service, abrasive blasting to a minimum commercial grade (SSPC-SP-6, NACE3) with a 50-75 µm surface profile is recommended for optimal performance. Abrasive blast cleaned steel requires two coats.

2. Aluminum and Galvanizing: brush blast, 50µm profile

3. Concrete and masonry: should be cured at least 28 days, cleaned, dry, and sound.

Remove curing compounds, form oil, salts, laitance and other contaminants. For best results, sand blast or acid wash with 15% Hydrochloric acid and thoroughly rinse with water. Concrete should be cleaned and dry before coating. For immersion service, abrasive blast referencing (SSPC-SP-13NACE16) surface preparation of concrete.

4. Wood: All coatings should be removed. Wood should be rough sanded.

### Mixing

E-COAL 90 is supplied in pre-weighed units consisting of base and hardener.

Power mix base component before adding hardener, then thoroughly mix the entire contents of the two components for at least two minutes.

Add the required amount of E-COAL 90 thinner.

Note: Both components will thicken in viscosity when cold. The material should be warmed to room temperature before mixing for best results

### Application

E-COAL 90 can be applied by brush, roller, airless or air type sprayers.

Apply only when air and surface temperatures are between 10°C - 35°C and surface is at least 3°C above dew point. For immersion service and severe environments, a total dry film thickness of 400µm applied in 2 coats is required, airless spray is preferred.

### Application Methods

<b>Airless spray</b>	
Nozzle tip	0.46 mm- 0.58 mm
Nozzle pressure	10 Mpa (approx. 1400 psi)
Solvent	4-7 %

<b>Conventional spray</b>	
Nozzle Tip	1.8 mm - 2 mm
Nozzle pressure	0.3 Mpa (approx.43 psi)
Solvent	5-10%

<b>Brush or Roller</b>	
Solvent	4- 8 %

## Packaging

E-COAL 90 is supplied 4.900 and 22.050 kg units.

A: 4 kg                      B: 0.9 kg

A: 18 kg                     B: 4.050 kg

E-COAL 90 thinner: 4 or 20-liter gallons.

# FARCO TEK E-COAL 90

## Storage

Keep the containers in a dry, cool, well-ventilated space and away from source of heat and ignition. Containers must be kept tightly closed.

## Shelf life

12 month in original closed packing.

## Safety and Handling Precaution

Keep away from heat, spark and open flames.

Avoid contact with skin or eyes. In case of contact, wash skin with soap and water.

Keep container closed and store in cool, ventilated area when not in use. Proper ventilation and protective measures must be provided during mixing, application and drying, to keep vapor concentration within safe limits and to protect against toxic hazard.

## Technical Service

The SHIMISAKHTEMAN Technical Service Department is available to assist you in the correct use of our products in the field.

