

# HIGH PERFORMANCE COAL TAR ALTERNATIVE SOLVENTLESS EPOXY

## EPAR CTA

### TECHNICAL DATA

## 1.0 DESCRIPTION

EPAR CTA is a high build solventless liquid epoxy coating with very good mechanical strength and flexibility.

EPAR CTA has excellent chemical resistance and adhesion to concrete, metal and asphalt.

EPAR CTA is non-flammable, non-sag and has an excellent cure response down to 0 °C.

EPAR CTA is zero VOC and does not contain coal tar pitch or other associated hazardous benzene derivatives.

## 2.0 PHYSICAL PROPERTIES:

2.1	Viscosity	Thixotropic – easily mixed and brushed but resistant to sagging after application to vertical surfaces.
2.2	Mix Ratio	1 : 1 by volume or weight.
2.3	Pot Life	30 minutes at 18 °C for 100 g.
2.4	Thin film cure time	7 hours at 18 °C or 24 hours at 0 °C.
2.5	Minimum Application Temp.	0 °C.
2.6	Shelf Life	1 year in original unopened containers.
2.7	Properties	
2.7.1	Colour and finish	Black, gloss.
2.7.2	Specific Gravity	1.24
2.7.3	Solids	100%
2.7.4	Sag resistance	No sag at 500 µm film build (2 m <sup>2</sup> / L)
2.7.5	Hardness	66 Shore D after 7 days cure.
2.7.6	Compressive Strength (MPa) 1 day	32*
2.7.7	Compressive Modulus (MPa)	64
2.7.8	Compression recovery (%) after 24 hours	94
2.7.9	Compressive Strength * (MPa) 7 days	57
2.7.10	Compressive Modulus (MPa)	114
2.7.11	Compression recovery (%) after 24 hours	93
2.7.12	Tensile Strength (MPa)	16
2.7.13	Flexural Strength (MPa)	24
2.7.14	Flexural Modulus (MPa)	34**

\* Compressive Strength: Ductile failure because of flexibility of material. Quoted compressive strength is pressure required to achieve approximately 50% compression. Compressive Modulus is also at 50% compression and compression recovery is % of initial length achieved after 50% compression and 24 hours recovery at ambient temperature.

\*\* Modulus at failure, approx 7.5 mm deflection for 25 mm thick and 40 mm long test pieces.

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## TECHNICAL DATA Continued

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### 3.0 USES

- 3.1 EPAR CTA may be used in all applications where traditional coal tar epoxies are used, on both horizontal and vertical surfaces. It has excellent resistance to water and chemicals. It may be used over many surfaces, including concrete, steel, asphalt and wood.
- 3.2 EPAR CTA may be used as a chemically resistant coating for bitumen, steel, concrete and wooden surfaces, against acids, oils, fats etc.
- 3.3 The combination of flexibility and hardness make EPAR CTA suitable as a joint filler where a small amount of movement is expected, e.g., expansion joints in concrete slabs.
- 3.4 EPAR CTA is 100% solids and contains no volatile or flammable solvents.
- 3.5 Like most epoxy coatings, EPAR CTA may lose its gloss and change colour slightly upon outdoor weathering but its protective properties will not be compromised by these changes.

### 4.0 APPLICATION INSTRUCTIONS

- 4.1 **SURFACE PREPARATION.** Thoroughly clean the surface of all extraneous matter, especially oil and grease. Concrete surfaces should be free of laitance, efflorescence, form oils and curing agents. These should be removed mechanically or by acid etching. Smooth concrete surfaces must be acid etched, then rinsed thoroughly and dried. Steel surfaces should be prepared by abrasive blasting or power tool grinding.
- 4.2 **MIXING.** Avoid air entrapment during mixing. Accurately proportion required volume of resin and hardener ensuring this amount can be used within its pot life. Mix thoroughly, preferably using a paint stirrer fitted to a low speed electric drill or a flat bladed spatula for smaller volumes. During the mixing process scrape the bottom and sides of the container at least once with a spatula or similar tool to ensure all components are incorporated. Mixing should continue for approximately 5 minutes.
- 4.3 **APPLICATION.**
  - 4.3.1 Do not thin EPAR CTA. Application can commence immediately after mixing – there is no need for any induction time. To lengthen the pot life, pour mixed epoxy into smaller cans or paint trays immediately to help dissipate any heat generated. Apply at a spreading rate of 2-4 m<sup>2</sup> per litre, by brush or roller, working well into the surface. Brush or roll in at least two directions, then finish off in the normal manner.
  - 4.3.2 Once the EPAR CTA has been applied, it should not be disturbed again. It will level to a reasonably smooth surface but will not sag. Avoid bumping or moving the applied coating until cured, as movement will promote sagging on vertical surfaces. Do not apply at a lower spreading rate than 2 m<sup>2</sup> / L or a film build of greater than 500 µm (0.5 mm) per coat.



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## TECHNICAL DATA Continued

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### 4.0 APPLICATION INSTRUCTIONS (continued)

- 4.3.3 One coat of EPAR CTA is sufficient for most purposes. However, if considered necessary, it may be recoated at any time.
- 4.4 **CLEAN-UP.** Tools and equipment may be cleaned before hardening commences by washing with EPAR CLEAN UP SOLVENT. Clean hands and skin with soap and hot water. Cured epoxy can only be removed by scraping or abrasion.

### 5.0 PRECAUTIONS

Wear appropriate personal protective equipment when using this product. Avoid skin and eye contact. Do not breathe vapours. Read product labels before use. Refer to Safety Data Sheet for complete handling and first aid details. Mix whole pack only if it can be used comfortably within 30 minutes.

### 6.0 PACKAGING

8 L pack (4 L hardener in 4 L metal tin, 4 L resin in 10 L plastic pail) with sufficient ullage to allow good mixing.



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