UNICOAT CTE

COAL TAR EPOXY PROTECTIVE COATING



Product Features

UNICOAT™ CTE is a two-component, high-solids coal tar epoxy coating based on solvent. It protects steel and concrete in immersion service, and can be built up to 200 microns dry film thickness. It cures to a hard, smooth, durable film.

It is designed as a dependable and cost-effective protective coating against corrosion on steel and concrete exposed to aggressive environments, including immersed and underground structures.

Advantages

Brush, roller or spray applied	High solids, 75% by volume
Up to 200 microns DFT per coat	Hard, smooth and durable film
Fresh water & sea water immersion	Protects both steel and concrete
Resists sewage, chemicals & abrasion	Long-lasting corrosion protection
Suits buried & underground structures	Cost-effective heavy-duty coating

Fields of Application

Water & Wastewater: sewage treatment plants, sumps, manholes and drains.

Marine & Immersion: jetties, piles, barges and ballast tanks in fresh or sea water.

Tanks & Pipework: linings for tanks, pipes and trenches carrying crude and petroleum products.

Industrial Plants: steel and concrete in paper mills, chemical plants and similar industries.

Buried Structures: underground steel and concrete exposed to aggressive soil.

Important Note

- Not recommended for immersion in aromatic or ketone solvents, or strong oxidising acids.
- Do not use mixed material beyond the recommended pot life.
- Apply only between 10 – 35 °C and avoid direct sunlight. Above 30 °C the pot life is shortened.
- Use the recommended thinners only to avoid problems with the finish.

This technical data sheet is given in good faith and does not guarantee the application work.
All Unity Reliance technical data sheets & method statements are updated on a regular basis and can be subject to change without notice.
It is the user's responsibility to obtain the latest version of the information required.

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Typical Chemical Resistance

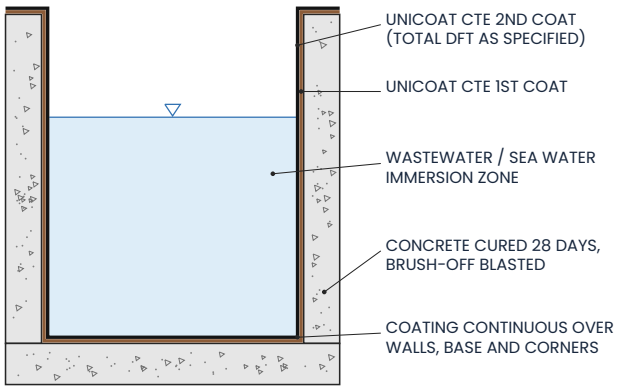
Exposure	Immersion	Spillage	Fumes
Acids	Very Good	Excellent	Excellent
Alkalies	Very Good	Excellent	Excellent
Solvents	Good	Very Good	Excellent
Salts	Excellent	Excellent	Excellent
Water	Excellent	Excellent	Excellent

Physical Properties

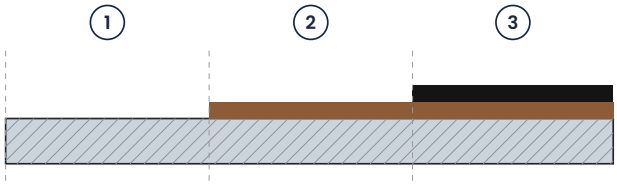
Finish	:	Semi-Gloss
Solids Content	:	75% ± 2 by volume
Color	:	Black / Brown
No. of Components	:	2
Recommended No. of Coats	:	2
Recommended Dry-Film Thickness	:	200µ
Mixing Ratio	:	16 : 4 by volume of Part A and Part B (4 : 1)
Pot-Life @ 25°C	:	4 hours
Drying @ 25°C	:	10 days (full cure)
Cleaner	:	Xylene
Application Methods	:	Airless, rollers or conventional spray
Packaging	:	20L / set (16L + 4L)
Calculated Coverage (200µ / coat)	:	3–4 m²/L depending on surface and application

Typical Drawing

1 SUMP / TANK LINING — Concrete section



2 STEEL – COATING BUILD-UP — Stepped section



1. STEEL – BLAST CLEAN SA 2½ (IMMERSION) OR SA 2 (NON-IMMERSION)
2. UNICOAT CTE 1ST COAT – BRUSH, ROLLER OR AIRLESS SPRAY
3. UNICOAT CTE 2ND COAT – BUILD UP TO SPECIFIED TOTAL DFT

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Installation Procedures

1 Surface Preparation | 2 Mixing & Stir | 3 Application

Installation Procedures

Step 1
SURFACE PREPARATION

For Non-immersion Service
Abrasive blast clean in accordance to SSPC-SP-6 (SA 2) 'Commercial Blast'

For Immersion Service
Abrasive blast clean in accordance to SSPC-SP-10 (SA 2½) 'Near White Metal'

For Concrete Surfaces
Allow new concrete to cure for 28 days. Brush-off blast.

Step 2
MIXING & STIR

Stir each component separately using electric drill fitted with a paint mixer or a wing type mixing paddle.

Then pour entire content of Part B into Part A and continue to mix material for 2-3 minutes until smooth and homogeneous before use. Do not mix partial kits.

Step 3
APPLICATION

For airless spray, use standard airless spray equipment with 28:1 or higher pump ratio and orifice tip size of 0.021 to 0.025".

For conventional spray, use industrial equipment spray gun. Separate air and fluid pressure regulators, mechanical pot agitator and a moisture trap in the main air supply line recommended.

It can be applied by brush or roller. Additional coat may be required to achieve the dry film thickness. Take care to avoid runs and sags.

Shelf Life & Storage

UNICOAT CTE has a shelf life of **12 months** when stored at temperatures below 30°C, kept out of direct sunlight and rain. Keep all containers tightly sealed until ready for use.

Health & Safety

Flammable. Keep away from heat, sparks and open flame. No smoking. Use in well-ventilated areas. Provide forced ventilation in enclosed spaces. Avoid breathing vapour or spray mist. Wear solvent-resistant gloves, safety goggles and overalls. Use a respirator when spraying or in confined spaces. Avoid skin and eye contact. May cause skin irritation or allergic reaction. Skin contact: wash with soap and water. Eye contact: rinse with clean water for 15 minutes and seek medical attention. Do not use mixed material beyond its pot life. Dispose of waste according to local regulations. Keep out of reach of children. Refer to the MSDS for details.

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