

Strongcoat PE1

Two component high solids coal tar epoxy resin coating system



DESCRIPTION

Strongcoat PE1 is a two component amine cured coal tar epoxy. The product has excellent chemical resistance properties which makes it particularly suitable for sewage treatment plants and for aggressive environments. Strongcoat PE1 is suitable for use on concrete, steel and asphalt surfaces.

APPLICATIONS

Strongcoat PE1 is designed for use in applications such as:

- » Waterproofing applications on concrete substrates.
- » Lining of manholes, pipes, jetties, piers, ducting and foundations waterproofing.
- » Sewage treatment plants.
- » Protection of concrete and steel structures submerged in sea water or exposed to tidal or splash zones.

ADVANTAGES

- » Excellent adhesion to concrete, steel and asphalt surfaces.
- » Cost effective; does not require primer.
- » Suitable for use as a waterproof coating.
- » High chemical resistance.
- » Does not support bacterial growth.
- » High abrasion resistance.
- » Can be applied to green concrete.

METHOD OF USE

SUBSTRATE PREPARATION

Concrete surfaces:

The Substrate should be sound, clean and free from contamination. Surface Laitance should be removed by sand or grit blasting and/or water jetting. All exposed blow holes should be filled with epoxy paste using Quickmast 341.

Steel surfaces:

All surfaces should be grit blasted to reach a bright finish meeting the requirement of Swedish Standard SA 2 1/2.

TECHNICAL PROPERTIES:

Mixed density:	1.10 ± 0.05
Solid content:	91 ± 2%
Colour:	Black
Abrasion & impact resistance: BS 3900 - E3	Passed
Bond strength: ASTM D4541	≥ 1.5 MPa
Pot life:	3 - 4 hr @ 25°C 1 - 2 hr @ 35°C
Re-coatable time:	24 hr @ 25°C Within 12 hr @ 35°C
Full cure:	After 7 days @ 25°C
Water absorption: ASTM D570	< 0.1%
Service temperature:	-10 to 55°C
VOC: ASTM D2369	< 150 g/ltr

MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. Stir the content of each component separately to disperse any settlement.

Add the entire content of the base to the hardener and mix for 3 minutes and until a uniform colour and consistency are achieved.

APPLICATION

Strongcoat PE1 can be applied by brush; roller and airless spray machine. The first coat should be applied to obtain a continuous uniform coating. The second coat should be applied within the over coating time to achieve the maximum adhesion between coats.

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Notes:

- » The area where Strongcoat PE1 is applied must be protected from any contact with water for at least 30 hours after application. Otherwise discolouration may occur. Also, in closed areas where the relative humidity is very high, good ventilation is needed and precaution must be taken to insure the full cure of the material.
- » Strongcoat PE1 must not be applied over other coatings, but can be applied on top of itself within the over coating times (mentioned above).
- » For temperatures around 5°C, the unmixed material needs to be heated before the application. Heating is done by storing packs in a heated area.

CLEANING

All tools should be cleaned immediately after application using DCP Solvent. Hardened materials must be cleaned mechanically.

PACKAGING

Strongcoat PE1 is available in 18 kg packs.

CONSUMPTION

Approximately 0.24 kg/m² per coat.

Two coats should be applied to achieve 400 microns dry film thickness.

STORAGE

Strongcoat PE1 has a shelf life of 12 months from date of manufacture if stored in dry conditions at a temperature of 25°C in original unopened Packs

If these conditions are exceeded, DCP Technical Department should be contacted for advice.

CAUTIONS

HEALTH AND SAFETY

Strongcoat PE1 should not come in contact with skin or eyes. Goggles, gloves and breathing apparatus with activated charcoal filters should be used.

In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice if necessary.

For further information refer to the Safety Data Sheet.

FIRE

Strongcoat PE1 is nonflammable.

CHEMICAL RESISTANCE

after full cure ASTM D1308 (after 7 days immersion in the below chemicals)

Organic Acids

Acetic Acid 10%	SS
Lactic Acid 10%	SS
Oleic Acid sat.	R
Citric Acid 25%	R
Vinegar 10%	R

Inorganic Bases

Sodium Hydroxide 50%	R
Ammonia Solution 10%	R
Potassium Hydroxide 50%	R

Aqueous Solutions

Sodium Chloride sat	R
Tap Water	R
Chlorinated Water	R
Dead Sea Water	R

Solvents

White Spirit	SS
Xylene	SS
Toluene	R

Oils & Fuels

Benzyl Alcohol	SS
Brake Fluid	SS
Engine Oil	R
Diesel	R
Kerosene	R
Detergents & Soaps	R

Inorganic Acids

Sulphuric Acid 25%	SS
Phosphoric Acid 20%	R
Hydrochloric Acid 10%	R
Nitric Acid 10%	SS

R: Resistant

RS: Resistant with slight discoloration

SS: Slight softening



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A wide range of construction chemical products are manufactured by DCP which include:

- » Concrete admixtures.
- » Surface treatments
- » Grouts and anchors.
- » Concrete repair.
- » Flooring systems.
- » Protective coatings.
- » Sealants.
- » Waterproofing.
- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.



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Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

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DCP Building Excellence

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