

## Epoxy mortar for pile capping system

### PRODUCT

**webertec epo 450 PC** is a three-component epoxy mortar. It is mainly used for pile capping. It has high bonding power, and high mechanical strength.

### PROPERTIES

**webertec epo 450 PC** adheres to most building materials: iron, concrete, bricks, etc. It has the following characteristics:

- Fast setting mortar, with no shrinkage
- High chemical resistance to: Petroleum, oil, grease, acids, alkalis, solvents, salt water
- High strength and excellent adhesion to its substrate
- Waterproof
- Simple mixing techniques

### SCOPE OF USE

**webertec epo 450 PC** can be used as an epoxy mortar with good workability (Resin + Hardener + Filler) for grouting and pile top encapsulating system. **webertec epo 450 PC** is used in the following applications:

- Pile Cap Repair: designed to encapsulate pile tops in a range of 5-50 mm thickness.
- Bonding or Anchoring: Steel bars and bolts in concrete or masonry, base plates, railway tracks, ground anchors.
- Patching and repair: concrete surface patching for walls and floors.
- Chemical proof and anti-acid treatment: floor screed.
- Grouting bearing plates and column bases.
- Heavy machinery and equipment foundations.

### CHARACTERISTICS

Description	3-components epoxy mortar
Composition	Resin, Hardener, selected fillers
Density	2.1 ± 0.05 kg/l
Water absorption @ 14 days (ASTM C 413)	0.14%
Tensile Strength(ASTM C307) @ 14 days 35°C	15 MPa
Bond Strength on concrete (BS 1881 Part 207) @ 14 days	> 2.8 MPa
Pot life	1 hr. @ 25 °C



### PACKAGING

Leb	Syria	Jordan	UAE	Qatar	Kuwait	KSA	Oman
278 Kg	278 Kg	278 Kg	278 Kg	278 Kg	278 Kg	278 Kg	278 Kg
110 Kg	110 Kg	110 Kg	110 Kg	110 Kg	110 Kg	110 Kg	110 Kg

2.8 kg epoxy + 25 kg fillers  
10 kg epoxy + 2x50 kg fillers

### COMPRESSIVE STRENGTH (N/mm<sup>2</sup>) - ASTM C 579

Result	1 day	3 days	7 days
Result @ 25°C	40 ± 5	60 ± 5	80 ± 5
Result @ 35°C	70 ± 5	80 ± 5	90 ± 5

### FLEXURAL STRENGTH (N/mm<sup>2</sup>) – ASTM C 580

Age	Result at 25°C	Result at 35°C
7 days	25±3	30±3

### APPLICABLE STANDARDS

BS 1881 Part 107 & 207, ASTM C413, ASTM C 579, ASTM C 307, and BS 4551.

### INSTRUCTIONS FOR USE

#### SURFACE PREPARATION

If necessary, brush or grind the substrate. In case of pile cap repair, wash the pile cap with water a few hours before the application of a suitable cementitious grout (like **webertec MC 1**, necessary to adjust the level of the pile before the application of **webertec epo 450 PC**. At the time of application of **webertec epo 450 PC**, the substrate should be completely dry, free from dust, greasy matters, paint and laitance.

## PRODUCT PREPARATION

The product is already delivered in the recommended mixing proportions.

Mix the **webertec epo 450 PC** hardener and resin to obtain a homogeneous mix, using a low speed electrical mixer (< 300 rpm).

To obtain a uniform epoxy mortar compound, gradually add the graded aggregates to the epoxy fluid while mixing for 2 to 3 minutes.

One full kit should be mixed, and the application should be done in a fast manner.

## PRODUCT APPLICATION

Patching mortar: Apply the mortar on the surface with a spatula or a trowel. Smoothen the surface.

The setting occurs within 2 to 5 hours.

Pile cap: Shuttering should be done on all sides of the pile before applying **webertec epo 450 PC**.

The surface should be leak proof and sufficient material should be prepared prior to pouring.

The setting occurs within 5 hours.

**webertec epo 450 PC** is a flowable material, however smoothening the surface with a trowel is required.

**webertec epo 450 PC** can be applied to the pile top up to a thickness of 50 mm.

After usage, clean tools with thinner.

## YIELD

14 lit / kit (28 kg/kit).

## STORAGE

12 months after manufacturing date in original and non-open packaging, under cover, in dry condition, away from humidity, protected from extreme temperatures and direct sunlight.

## SAFETY PRECAUTIONS

Application should be done in a ventilated area away from any heat source. Wear protective gear for hands and eyes and avoid breathing of vapor. If mixed resin comes into contact with the skin, it should be promptly removed before hardening, followed by thoroughly washing the skin with soap and water. In case of heavy vapor inhalation, place affected person in an open-air area. In case of contact with eyes, wash thoroughly with clean water. If swallowed, do not induce vomiting. In all cases, seek medical attention. In case of fire, use CO<sup>2</sup> foam to extinguish. Tightly seal containers when not in use, store them away from heat and carefully dispose empty ones.

## DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that this Data Sheet version is the latest one. The company may modify it without prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

## NOTE

The information included on this Technical Data Sheet is the sole property of SODAMCO Holding. The unauthorized disclosure, use, dissemination or copying (either whole or partial) of this data sheet or any information it contains, is prohibited and subject to legal pursuit.