

# INNO- CRETE FOX EPOMORTAR FC510

## Epoxy Resin Based Repair, Anchorage and Assembly Mortar

### Description

**FOX EPOMORTAR FC510** is an epoxy resin based, two component, anchorage, assembly and repair mortar.

**In compliance with EN 1504-4 & EN 1504-6 standard / Repair Method: 4.4**

### Fields of Application

- In all kinds of iron sprout planting, fixing anchorage elements,
- Concrete crack repair and insulation,
- In all kinds of structural concrete repairs,
- Assambling and adhering all kinds of metal parts to concrete or steel parts,
- It is used in injection works, plugging the cracks and fixing the Packers,
- It is used to fix the insulation tapes to concrete.

### Advantages

- Does not contain solvent.
- Easy to use and apply.
- Has high mechanical strength.
- It is waterproof.
- Can even stick to damp surfaces.
- Adheres perfectly to concrete and steel.
- Has high resistance to chemicals.
- It is thixotropic and does not sag.

### Technical Data

	Component A	Component B	Epoxy resin
Structure of Material			Epoxy Hardener
Density			1,7 kg/lt
Color			Gray
Application Thickness			Min. 2 mm - Max. 30 mm
Bending Strength	EN 12190	1 day 7 days	$\geq 17$ N/mm <sup>2</sup> $\geq 25$ N/mm <sup>2</sup>
Bond Strength	To concrete To steel	28 days 28 days	3 N/mm <sup>2</sup> 3,5 N/mm <sup>2</sup>
Compression Strength	EN 12190	1 days 7 days	$\geq 30$ N/mm <sup>2</sup> $\geq 55$ N/mm <sup>2</sup>
Shear Strength	EN 12615		$\geq 6$ N/mm <sup>2</sup>
Elasticity Module in Pressure	EN 13412		$\geq 2000$ N/mm <sup>2</sup>
Working Time	EN ISO 9514		45 minutes
Total shrinkage of structural bond material	EN 12617-3		$\leq 0,1$
Glass transition temperature	EN 12614		$\geq 40^{\circ}\text{C}$
Thermal expansion coefficient	EN 1770		$\leq 100 \times 10^{-6}/^{\circ}\text{C}$
Adhesion	EN 12636		Passable
Durability	EN 12636		Passable
Pull out Strength	prEN 1881		$\leq 0,6$ mm
Chloride ion content	EN 1015-17:2002		$\leq 0,05$
Temperature Resistance			$-15^{\circ}\text{C} / +90^{\circ}\text{C}$
Surface Temperature			$+5^{\circ}\text{C} / +30^{\circ}\text{C}$
Time of Walkable on it			24 hours
Fully Cured Time			7 days
Reaction to Fire	EN 13501-1		Class E

The above values are given for +23°C and 50% relative humidity. High temperatures shorten the time, low temperatures extend the time



## Application Procedure

### Preparation of Substrate

#### Concrete, Stone, Mortar

The application surface should be free from materials that would adversely affect the adherence of the material such as loose particles, oil, dust and water ponding.

#### Steel

Rusted surfaces should be decontaminated from rust by sandblasting.

#### Other (ceramic, glass, epoxy etc.)

Such surfaces should first be primed with **FOX EPOTHANE® PRIMER**, then **FOX EPOMORTAR FC510** should be applied while the primer is wet.

### Mixing

Before starting the mixing, make sure that the material temperatures are between +15°C and +25°C. **FOX EPOMORTAR FC510** Component B is completely poured into component A. It is mixed for at least 3 minutes with 400 - 600 rpm by an electric mixer and suitable mixing tip by taking care not to leave unmixed material on the packaging edge or base.

### Application

When **FOX EPOMORTAR FC510** is used as an adhesive, homogeneous mixture is applied on the prepared surface with a spatula, trowel, notched trowel. Application thickness should be between 2 mm-30 mm. An appropriate mortar gun should be used in anchoring applications. In addition, the holes to be anchored must be at least 6 mm larger than the anchor bar. The holes opened must be cleaned with the help of wire brush and compressed air. After the hole to be anchored is filled, the anchor bar should be placed by turning it.

### Cleaning of the Tools

Tools and equipment used after the application should be cleaned with solvent. **FOX EPOMORTAR FC510** can only be mechanically cleaned from the surface after hardening.

### Coverage

To obtain 1 mm thickness, approximately 1.70 kg/m<sup>2</sup> powder product should be used.

### Watch Points

- **FOX EPOMORTAR FC510** must be mixed with a suitable mixing drill. It should never be mixed by hand or trowel.
- Working and hardening times of epoxy resin based products depend on the ambient and ground temperature.
- The most suitable application temperature range is +5°C to +30°C. The working time of the mixed material at low temperatures is long and its working time at high temperatures is short.
- Solvent etc. materials must not be added to **FOX EPOMORTAR FC510** mixture.
- In order for the material to complete its curing, the ground temperature and ambient temperature to be applied must not fall below the minimum allowed value.

### Package

5,00 kg Set

Component A: 3,75 kg Tin Bucket

Component B: 1,25 kg Tin Bucket

### Shelf Life

When stored properly at room temperature, away from direct sunlight, between +5°C and + 30°C, shelf life is 12 months from the date of production. Opened packages should be consumed within 1 week by closing their mouths.

### Storage

Should be stored in its original package, in a cool and dry place protected from frost. In short-term storage, maximum 3 pallets should be placed on top of each other and shipment should be made with the first-in, first-out system. In long-term storage, pallets should not be placed on top of each other.



### Safety Precautions

It is dangerous to approach the storage and application areas with fire. Storage and application areas should be ventilated.

During the application, work clothes, protective gloves, goggles, masks in accordance with the occupational health and safety rules should be used. During storage and application, the material should not be contacted with the skin and eyes, if contacted, should be washed immediately with plenty of water and soap, and if swallowed, should be sought medical attention immediately. Foods and drinks should not be taken into the application areas. The material should be stored out of the reach of children.

For detailed information, please refer to the Material Safety Data Sheet.

### Disclaimer

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Sartech Yapı Malzemeleri San. Tic. Ltd. Şti.  
Antalya Organized Industrial Zone Part 1, Street 7, No: 6  
Döşemealtı / ANTALYA / TURKEY

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**1020 - CPR - 040 063550**

**Dop No: 0044**

**EN 1504-4:2004**

**FOX EPOMORTAR FC510**

Epoxy resin based, two component, anchorage,  
assembly and repair mortar

Principles 4: Structural Reinforcement 4.4 Bonded mortar or concrete

Elasticity Module in Pressure /  $\geq 2000 \text{ N/mm}^2$

Compression Strength/  $\geq 30 \text{ N/mm}^2$

Shear Strength/  $\geq 6 \text{ N/mm}^2$

Open Time /  $30 \pm \%20$  minutes

Workability Time/ 45 minutes (23°C)

Total shrinkage of structural bond material /  $\leq \%0,1$

Glass transition temperature /  $\geq 40^\circ\text{C}$

Thermal expansion coefficient /  $\leq 100 \times 10^{-6}/^\circ\text{C}$

Adhesion / Passable

Suitability for application and curing in special  
environmental conditions / Passable

Durability / Passable

Dangerous Substances / In accordance with Item 5.4

Reaction to Fire / Class E



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**1020 - CPR - 040 063551**

**Dop No: 0044**

**EN 1504-6:2006**

**FOX EPOMORTAR FC510**

Epoxy resin based, two component, anchorage,  
assembly and repair mortar

Repair Principle: Structural reinforcement by planting  
reinforcing bar using anchorage product

Pull out strength /  $\leq 0,6 \text{ mm}$

Chloride ion content /  $\leq \%0,05$

Dangerous Substances / In accordance with Item 5.3

Reaction to Fire / Class E

