

# INNO-CRETE FOX MORTAR FC188 T

## High Strength, Thixotropic, Fibrous, Structural Repair Mortar

### Definition

**FOX MORTAR FC188 T** is a cement-based, one-component, fiber-added, thixotropic, high-strength structural repair mortar.

**Public Works exposure No: 04.613/3b**  
**Conforms to EN 1504-3:2005 standard/R4 class.**

### Field of Application

- In the repair of high-strength concrete carriers,
- In chamfering at joints,
- In slab concrete repairs,
- In repairs of marine structures,
- Coating of concrete to protect it against the effects of sulfate and chlorine,
- It is used in the repair of tie-rod holes and core cavities.

### Advantages

- It can only be mixed with water and is easy to apply.
- Provides high adherence to concrete and reinforcement.
- It has high pressure resistance.
- It shows high thixotropic properties.
- It is water impermeable.
- Resistant to Freeze-Thaw cycle.
- Does not require primer.
- It does not cause shrinkage.
- It gains strength quickly.
- Resistant to chlorine, sulfate and oils.

### Technical specifications

Structure of the Material				Mineral fillers, fiber and polymer reinforced special cement
Density				2,25±0,05 kg/lt
Color				Grey
Compressive Strength	EN 12190	1 day	≥25 N/mm <sup>2</sup>	
		7 day	≥50 N/mm <sup>2</sup>	
		28 day	≥70 N/mm <sup>2</sup>	
Flexural Strength	EN 12190	28 day	≥12 N/mm <sup>2</sup>	
Adhesion to Concrete	EN 1542	28 day	≥2,4 N/mm <sup>2</sup>	
Elasticity Modulus		28 day	≥20 KN/mm <sup>2</sup>	
Application Thickness				Min. 10mm - Max. 40mm
Application Ground Temperature				+5°C /+30°C
Service Temperature				-20°C /+40°C
Usage Time				30 min.
Walkable Time				24 hour
Full Curing Time				28 day

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

### Application Procedure

#### Surface preparation

The surfaces to be repaired must be solid and free of all kinds of dust and dirt. Broken surfaces for repair should be made as steep as possible. Water should be removed from excessively wet and puddled surfaces by draining. Dry surfaces should be slightly moistened



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## Mixing

The appropriate amount of water specified on the packaging is poured into a clean mixing bowl. While **FOX MORTAR FC188 T** is slowly added into the water, it is mixed with a 400-600 speed electric mixer and a suitable mixing tip for approximately 3-4 minutes until it becomes homogeneous. There should be no lumps left in the material. After the material is left to rest for 30 seconds, it is mixed again for 1 minute to make it ready for application.

## Mixing Ratios

Approximately 4.25±0.25 lt of water should be used for 25 kg/1trb **FOX MORTAR FC188 T**.  
Approximately 170 ±10 ml of water should be used for 1 kg of **FOX MORTAR FC188 T**.

## Application

The prepared mixture is applied with a trowel in a single layer, not exceeding 4 cm. It should be applied in layers where greater thickness is required. In cases where a flat finish is required, the material is waited to absorb its water and the surface is completed by sprinkling water on the surface with a wooden or steel trowel. In applications made in places exposed to outdoor weather conditions, extremely hot and windy environments, the surface should be protected with a wet sack or curing material for 48 hours.

## Cleaning Application Tools

Tools and equipment used after application should be cleaned immediately with water. **FOX MORTAR FC188 T** can only be cleaned from the surface mechanically after hardening.

## Consumption

To obtain 1 mm thickness, approximately 1.90 - 2.0 kg/m<sup>2</sup> powder product should be used.

## Matters to be taken into consideration

- **FOX MORTAR FC188 T** should be applied within 30 minutes at +20°C.
- For outdoor applications, it should be protected from sun, rain, wind and frost for the first 24 hours.
- Working and reaction times of cement-based repair mortars are affected by air temperature, humidity and ground temperatures. High temperatures accelerate hydration and the working time is accordingly shortened. Low temperatures slow down hydration, which increases operating time. In order for the material to complete its cure, the applied ground temperature and ambient temperature must not fall below the minimum allowed temperature.
- It should not be used in contact with plasters whose pH value is lower than 5.5.
- A vibrator should never be used while placing the material.

## Packaging

25 kg polyethylene kraft bag

## Shelf life

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

## Storage

It should be stored in its unopened original packaging, in a cool and dry environment, protected from frost. For short-term storage, a maximum of 3 pallets should be placed on top of each other and shipment should be made on a first-in, first-out system. For long-term storage, pallets should not be stacked on top of each other.

## Security precautions

It is dangerous to approach storage and application areas with fire. Storage and application areas should be ventilated. During application, work clothes, protective gloves, glasses and masks in accordance with occupational and worker health rules should be used. It should not be contacted with skin or eyes during storage and application. In case of contact, it should be washed immediately with plenty of water and soap. If swallowed, a doctor should be consulted immediately. Food and beverage materials should not be brought into application areas. It should be stored in places inaccessible to children.

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

## Disclaimer

The data contained in this technical document is based on our scientific and practical knowledge. SARTECH Yapı Malz. San. ve Tic. Ltd. Şti. is only responsible for the quality of the product. Our company cannot be held responsible for the consequences that may occur due to misuse and/or other than the written suggestions about where and how the product will be used. For detailed information, the safety data sheet and technical data sheet should be consulted or our company officials should be contacted.



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**Dop No:** 0005

EN 1504-3:2005

Fox Mortar FC188 T

High Strength, Thixotropic Structural Repair Mortar  
Principle 3.1, 3.2

Compressive strength / class R4 $\geq$ 45 Mpa

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

Bond formed by adhesion / class R4 $\geq$ 2,0 Mpa

Limited shrinkage / expansion / class R4 $\geq$ 2,0 Mpa

Resistance to carbonation / min.  $\leq$  control concrete (MC(0,45))

Response to Fire / class A1

