

# INNO-CRETE FOX HISTOCRETE STRUCTURE

## Pozzolanic Lime Based, Historical Structural Repair Mortar

### Description

**FOX HISTOCRETE STRUCTURE** is a pozzolanic lime based, cement-free, high strength, thixotropic structural repair mortar developed for historical buildings.

### Fields of Application

- In the sheathing of masonry walls,
- In the sheathing of arches and vaults,
- In wall and plaster repairs
- Placement of carbon rods in wall joints,
- Repairing and strengthening of masonry foundations.
- It is used as a repair mortar in floor repairs or thick sheathing applications by adding aggregate to it.

### Advantages

- Does not contain cement.
- Has high mechanical strength.
- Adhesion resistance is high.
- The water soluble salts it contains are limited.
- Easy to prepare and apply.
- Breathable, has high water vapor permeability.
- Capillary water absorption is low.
- Blooming resistance is high.

### Technical Data

Structure of Material		Puzzolanic lime and Special Gradation Natural Aggregate
Mixture Density		2.07-2.10 kg/liter
Water Vapor Permeability	(EN 1745)	$\mu < 35$
Water soluble salts it contains	(UNI 11087)	Electrical Permittivity $< 80 \mu\text{Scm}^{-1}$ SO <sub>4</sub> < %1 Na+ < %0.05 K+ < %0.05
Capillary Water Absorption	(UNI EN 1015/18)	0.2 Kg.m-2.min-0.5
Compressive Strength	(UNI EN 1015/11)	15-20 N/mm <sup>2</sup>
Modulus of Elasticity	(UNI EN 13412)	16,000 N/mm <sup>2</sup>
Surface Temperature to be Applied		+5°C / +40°C

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

### Application Procedure

#### Surface Preparation

Care should be taken to ensure that the surfaces to be repaired and plastered of historical masonry structures are solid, dust-free and clean. The surface is free of all kinds of oil, grease, rust, etc. that will weaken the adherence. The wall surface on which **FOX HISTOCRETE STRUCTURE** will be applied must be pre-moistened to improve the adhesion and setting time of the mortar. If there is a water flow on the surface, it should be closed with the help of a suitable plug and the water should be drained. There should be no free water on the surface that will prevent adhesion.

#### Mixing Ratios

For 1 kg of **FOX HISTOCRETE STRUCTURE** powder, 0.24-0.265 liters of water should be added.

#### Mixing

The appropriate amount of water is poured into a clean mixing bucket with the help of a scale. **FOX HISTOCRETE STRUCTURE** is added slowly and mixed with a 400 - 600 rpm mixer for 3-4 minutes until a homogeneous and lump-free mixture is obtained. After resting for about 4 minutes and mixing again for 30 seconds, the material becomes ready to use.



## Application

The prepared mortar is applied with a trowel, with a thickness of 1-5 cm.

The mortar is expected to absorb its water and the surface is finished as desired with a steel or wooden trowel by sprinkling water on the cured mortar with a plaster brush. In applications to be made in more than one layer, after the previous layer has hardened, application should be made as each layer must be applied with a maximum thickness of 5 cm. The previous layer must be moistened before the new layer is applied.

Mortar can be prepared for thick applications such as screed and concrete, by adding 30-35% by weight of clean-washed aggregate with a grain size of 5-20 mm into the fresh mortar. During mortar preparation, the amount of water (10-15%) can be slightly increased according to the desired consistency.

Wide surfaces open to the atmosphere, especially in hot, dry and windy environments, should be protected against rapid evaporation with wet sacks or water for 24-48 hours after the application.

## Cleaning of the Tools

After the application, tools and equipment used should be cleaned with water. **FOX HISTOCRETE STRUCTURE** can only be cleaned from the surface mechanically after it hardens.

## Consumption

To obtain 1 cm thick plaster, 17.0 kg/m<sup>2</sup> powder should be used.

## Watch Points

- During the application, the ambient and surface temperature should not be below +5°C and above +40°C.
- The materials to be used must be brought to the application site 1 - 2 days in advance and must adapt to the ambient conditions.
- Mixing must be done with the help of suitable mechanical mixers. Mixing must not be done by hand.
- In order for the material to complete its setting, the ambient and surface temperature must not fall below the minimum allowable temperature.
- For exterior applications, the surface should be protected from sun, wind, rain and frost for the first 24-48 hours after the application.

## Package

20 kg bag

## 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 provided that closing their lids.

## Storage

Should be stored in its original package, in a cool and dry place protected from frost. In short-term storage, maximum 3 palletes should be placed on top of each other and the shipment should be made on a first-in, first-out system. In long-term storage, palletes 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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