

## INNO-FLOOR FOX PROCRETE® HF

**Obtained by Modification of Polyurethane Based Resins with Special Additives and Chemicals, Three Component, Chemical Resistant, High Performance, High Compressive Strength, Non-Slip Polyurethane Concrete Mortar for Industrial Floors**

### Description

**FOX PROCRETE® HF**, is an industrial floor coating system applied in -12 mm thickness obtained by modification of polyurethane-based resins with special additives and chemicals, is a three-component, anti-slip surface, with excellent chemical, thermal shock and solvent resistance, designed for use in wet and dry environments.

### Fields of Application

In areas exposed to heavy / medium traffic load, long life and durable coating need,

- Food, Chemistry and Pharmaceutical industries,
- In areas requiring chemical and mechanical resistance,
- Production areas,
- Packaging areas,
- Wine and beer brevieries,
- Industrial Kitchens,
- Water Plants,
- Laboratories,
- Storage areas.

### Technical Features

Density		2,05 g/cm <sup>3</sup>
Colour		Red, Yellow, Blue, Orange, Green, Grey, Cream
Compressive Strength	28 days	58 N/mm <sup>2</sup>
Breaking Strength		>3,60 N/mm <sup>2</sup>
Tensile Strength		6 N/mm <sup>2</sup>
Bending Strength		16 N/mm <sup>2</sup>
Application Thickness		1-12 mm
Thermal Resistance	12mm	-40°C / +130°C
Application Surface Temperature		+8°C / +30°C
Pedestrian Traffic		24 hours
Working Time		35 minutes
Light Traffic		24 hours
Fully cures		48 hours



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

### Advantages

#### Thermal Resistance

**FOX PROCRETE® HF** does not lose its properties against liquid spills under the temperatures, for 6 mm coating between -25°C / +80°C, for 9 mm coating -40°C / +120°C, for 12 mm coating is -40°C / +130°C (Rarely in case of rising to +150°C. Repeated thermal shocks and thermal transformations under liquid-vapour effects do not cause blistering and peeling in the coating.

#### Anti-Slip

**FOX PROCRETE® HF**, according to EN13036-4 standard, has a low sliding potential compared to non-slip tests performed on wet ground using 4-S rubber. It creates a non-slip floor even on wet and oil spilled surfaces. **FOX PROCRETE® HF** floor coverings have been formulated to meet this specific requirement with the right shoe selection. **FOX PROCRETE® HF** maintains its anti-slip properties for many years, even under heavy steel wheeled traffic. Optimum non-slip resistance can only be achieved by regular cleaning.

Anti-slip Test Values	Slip Potential EN13036-4	FOX PROCRETE® HF EN13036-4	Slip Angle DIN51130	FOX PROCRETE® HF DIN51130
36 and above	Low	40-45	19° -27° (R11)	R11
25-35	Medium	-	10° -19° (R10)	
24 and below	High	-	6° -10° (R9)	



### Volatile Substance and Odour

**FOX PROCRETE® HF** emits very low emissions as a result of VOC emission chamber test, quality management inspection and product control procedures and is suitable for all emission conditions for indoor floor systems. Since it does not contain any volatile components that may affect the health and comfort of the staff, it is an extremely clean product that does not have the risk of smell on food. After 12 hours of application, the food stain becomes impervious.

### Impact and Abrasion Resistance

**FOX PROCRETE® HF** has high mechanical properties thanks to its low modulus of elasticity and is also very durable under point impact. It provides high mechanical resistance against very heavy loads. It does not disassemble, create cracks, scratches and crushes. It provides extremely high abrasion resistance for floors under heavy static and dynamic loads, where forklift trucks are transported and steel wheeled transport vehicles operate.

### Chemical Resistance

**FOX PROCRETE® HF** provides outstanding resistance to chemical attacks. It is extremely resistant to a wide spectrum of chemicals, from concentrated inorganic and organic acids to alkalis and solvents.

Some of these chemicals are as follows:

- Acids commonly used in Food Industry such as acetic acid, lactic acid, oleic acid, citric acid,
  - Hydrochloric, nitric, phosphoric and sulphuric acids,
  - Alkali containing 50% Concentration sodium hydroxide
  - Vegetable and animal oils, sweeteners and essences,
  - Mineral oils, gas oils, petrol etc. petroleum products,
  - Organic solvents containing methanol, xylene and ethers,
- (For detailed information, please contact our Technical Service).

### Permeability

**FOX PROCRETE® HF** exhibits zero permeability and has no surface absorbency.

### Moisture Tolerance

**FOX PROCRETE® HF** is extremely resistant to moisture. It can be applied on 7-day concrete or old concrete with high moisture content without using special primers. This applicability provides quick and easy programming in facilities with wet areas. Epoxy floor coatings applied under the same conditions show deterioration.

### Cleaning and Hygiene

**FOX PROCRETE® HF** 6 mm coating is a hygienic product suitable for light steam cleaning and 9 mm coating for intensive steam cleaning. Thanks to its chemical and monolithic structure, it does not create an environment suitable for bacterial and fungal growth. Therefore, it can be used safely in the food and pharmaceutical industries, where hygiene standards are highest. Regular cleaning and maintenance increases the ground life and ensures a good appearance.

### Application Procedure

#### Surface Quality

**FOX PROCRETE® MF** concrete substrates to be applied must be strong and have sufficient compressive strength (at least 25 N/mm<sup>2</sup>), tensile strength must be at least 1.5 N/mm<sup>2</sup>, ground temperature must be minimum +8°C. In addition, it should be noted that the dew point of the ground must be above +3°C. The substrate should be clean, dry and free from all kinds of dirt, oil, grease, coating and surface curing materials etc.

#### Substrate Preparation

Concrete substrates should be prepared in such a way as to obtain an open porous surface by removing cement grout using abrasive equipment (Shot Blasting, milling, diamond polishing, etc.). Weak concrete pieces should be removed from the surface, small gaps, holes should be made completely open. The resulting dust should be cleaned with the help of an industrial vacuum cleaner. The substrate repairs should be done with the mortar obtained by mixing 60-70 AFS (0,1-0,3mm) quartz sand and **FOX PROCRETE® PRIMER** for filling the voids and smoothing the surface.

Due to its general structure, **FOX PROCRETE® HF** can pull / stretch in itself. To prevent this, 8-10 mm thick joint should be opened at the edges of the column and the ground (at least 4-5 meters for the floor) and the joint gaps should be cleaned with the help of an industrial vacuum cleaner. These gaps should be filled with **FOX PROCRETE® HF** after application of **FOX PROCRETE® PRIMER**.



### Application Conditions

- It can be applied on 7 days old concrete or old concrete with high moisture content without using special primers.
- Pay attention to dew and condensation!
- Dew and water vapour condensation on the floor that has not been applied or newly coated will damage the coating. To prevent this, the floor temperature must be above +8°C.

### Watch Points in Application

Surface Temperature	; Minimum +8°C - Maximum +30°C
Ambient Temperature	; Minimum +10°C - Maximum +30°C
Material Temperature	; Minimum +15°C - Maximum +25°C

### Mixing

Before starting the mixture, make sure that the product temperatures are between +15°C / +25°C. Since **FOX PROCRETE® HF** has 3 components, obtaining a homogeneous mixture is important in terms of no air bubbles and surface defects that may occur after application. For this reason, it is highly recommended to mix with a mixer such as COLLOMIX XM 2 etc. After A and B component **FOX PROCRETE® HF** is completely added into the Collomix XM 2 mixer, C component powder is added on A+B component. It is mixed for a maximum of 3 minutes until a homogeneous mixture is obtained.

### Application

#### Primer

Surfaces to be made with **FOX PROCRETE® HF** must be primed with **FOX PROCRETE® MF** with a suitable trowel or with **FOX PROCRETE® PRIMER** by applying a roller application. Attention should be paid to the floor temperature (min +8°C). Application should be done within the time that it can be coated on the primer. If priming will be done with **FOX PROCRETE® PRIMER**, this period is minimum 24 - maximum 72 hours. In cases exceeding 72 hours, re-priming is required before applying **FOX PROCRETE® HF**. If priming with **FOX PROCRETE® MF** will be applied, the coating time on the primer is minimum 8 hours.

#### Coating

The prepared **FOX PROCRETE® HF** mixture is poured on the already primed surface, it is spread with a suitable trowel or gauge in the desired thickness. To obtain an uninterrupted and smooth ground; when the concrete reaches the consistency that can carry the weight of the helicopter polishing machine or when the footprint is 0.5 cm, polishing is done by using the helicopter machine.

#### Cleaning of the Tools

After the application, the tools and equipment used should be cleaned with solvent. **FOX PROCRETE® HF** can only be removed from the surface mechanically after it hardens.

#### Coverage

To obtain 6 mm thickness 11-13 kg/m<sup>2</sup>,  
To obtain 9 mm thickness 17-19 kg/m<sup>2</sup>,  
To obtain 12 mm thickness 22-24 kg/m<sup>2</sup>

**FOX PROCRETE® HF** mixture should be used.

### Watch Points

- In the application of **FOX PROCRETE® HF**, if the ambient and surface temperature is below +8°C or above +30°C, suitable temperatures should be expected. Application should not be made in extremely hot, rainy or windy weather. Materials to be used in the application area should be brought and stored 1-2 days in advance and adapted to the ambient conditions. In applications to be carried out in extreme cold weather, the ambient and ground temperature should be increased with heaters, and the materials to be used should be conditioned at +20°C and +25°C and made ready for application.
- Working and reaction times of polyurethane based systems are affected by ambient and ground temperature and relative humidity in the air. At low temperatures, the reaction slows down, which increases pan (pot) life and working time.
- High temperatures accelerate the reaction and the times mentioned above are shortened accordingly. For the material to complete its curing, the ambient and ground temperature should not fall below the minimum allowed value. After mixing, the material should be rested and then mixed again.
- After applying **FOX PROCRETE® HF**, it is necessary to wait at least 1 day before applying another coating.



### Package

20 kg set

A Component; 1,54 kg plastic bin

B Component; 1,76 kg plastic bin

C Component; 16,70 kg powder polyethylene reinforced kraft bag

### Shelf Life

When stored properly at room temperature, away from direct sunlight, between +5°C and +30°C, its shelf life is 6 months from the date of manufacture. Opened packages should be consumed within 1 week by closing their mouths.

### Storage

It should be stored in its original unopened package, at a temperature range of +5°C to +30°C, in a cool and dry environment, away from direct sunlight, 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.

**FOX PROCRETE® HF** A Component freezes below 0°C. Therefore, special attention should be paid to storage conditions.

### 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, it should not be contacted with the skin and eyes, should be washed immediately with plenty of water and soap, and if swallowed, seek medical attention immediately. Food and drink materials should not be introduced into the application areas. It 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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