INNO-FLOOR

FOX EPOTHANE® PRIMER HB

Epoxy Based, For Humid Surfaces, Solvent Free, Transparent, Primer

Description

FOX EPOTHANE® PRIMER HB is an epoxy based, two-component, transparent, solvent free, low viscosity primer set that creates a humidity barrier.

Fields of Application

- On dry, moist, fresh concrete,
- On dry, damp, even non-blasted steel,
- Gloss and smooth surfaces,
- As primer before epoxy and polyurethane coatings,
- As a binder for epoxy based levelling mortars and screeds,
- It is mixed with silica sand in appropriate size and used as repair and filling mortar.
- As a primer before **FOX EPOTHANE®** series epoxy floor coatings,
- As a primer before **FOX PURATHANE®** series polyurethane floor coatings,
- As a primer before **FOX PURMAX®** series polyurethane waterproofing coatings.

Advantages

- Used in interiors and exteriors.
- It can be applied under +10°C up to 100% relative humidity and completes curing.
- It provides good corrosion protection on steel.
- It has high chemical and mechanical resistance.
- Despite its high mechanical properties, it is flexible and does not lose its flexibility over time.
- It can be filled with a high amount of filling.
- Easy to apply.
- Surface adherence is excellent.
- It adheres perfectly to shiny, glassy and smooth surfaces.
- Liquid and moisture impermeable.
- Non-Slip surface can be obtained.
- Does not contain solvent.
- Low viscosity can be applied with ease even in low temperatures.
- It has high adhesion strength to dry, moist and fresh concrete.
- It can be applied in the open area after rain and on concrete washed by water jet.

Technical Features

Density		1,03 ±0,05 gr/cm^3
Colour		Transparent, Yellowish
Mortar Properties with 14,3% Binder		
Compressive Strength		~109 N/mm^2
Flexural Tensile Strength		~40 N/mm^2
Splice Strength	Concrete	≥2 N/mm^2
Solids by %		% 100
Dilution		No dilution
Application Surface Temperature		+5°C / +30°C
Vapour Permeability	ISO 7783-2	4,1 gr/m^2 day
Working Time		35-40 minutes

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

Physical Features

Temperature	+10°C	+20°C	+30°C
Relative Humidity Ratio	%60	%60	%60
Pot Life	45 minutes	35 minutes	25 minutes
Over Coating Time	Min. 24 - Max. 35 hours	Min. 12 - Max. 18 hours	Min. 7 - Max. 10 hours
Pedestrian Traffic	30 hours	15 hours	8 hours
Light Traffic	3 days	2 days	1 days
Fully Cures in	7 days	7 days	7 days

The above values are theoretical. It may vary depending on temperature differences and humidity.

System Details and Coverage

System Details		Product	Coverage
Primer	Primer	FOX EPOTHANE® series (See primer selection chart.)	100-200 gr/m²
	Surface Roughness <1 mm	1 unit FOX EPOTHANE® series + 0,5 unit Silica sand 60-70 AFS (0,1-0,3 mm) by weight	200-500 gr/m² 100-250 gr/m²
	Surface Roughness up to 2 mm	1 unit FOX EPOTHANE® series + 1 unit Silica sand 60-70 AFS (0,1-0,3 mm) by weight	200-500 gr/m² 200-500 gr/m²
Mortar Coating and Repair Mortar	5-20 mm layer thickness	1 unit FOX EPOTHANE® PRIMER + 3 unit Silica sand 60-70 AFS (0,1-0,3 mm), 3 unit Silica sand 40-45 AFS (0,3-0,5 mm), 3 unit Silica sand 15-25 AFS (0,7–1,2mm), by weight	2,2 kg/m²/mm

The above values are theoretical and do not include the need for additional materials depending on surface porosity, profile, differences in leveling and weakening.

Chemical Resistance

Leaded Benzene	+	Beer	+	Cyclohexane	+	Diesel Oil	+
Sulphuric Acid %30	+	Nitric Acid	+	Acetic Acid	+	Caustic Soda	+
Toluene	+	Xylene	+	Styrene	+	Fruit Juice	+
Ethanol % 10	+	Ethylene Glycol	+	Glycerine	+	Milk	+
Sodium Chloride %30	+	Sodium Hydroxide %10	+	Olive Oil	+	Paraffin	+
Petroleum	+	Castor Oil	+	Silicone oil	+	Sugared Solution	+
Deionize Water	+	Soap	+	Javelle Water	+	Toluene	+

Colour change may occur due to the effects of chemicals. This research was done at room temperature. High temperature values and / or mixtures of chemicals can affect chemical resistance.

Primer Selection Table

SURFACE CONDITION	RECOMMENDED PRIMER
Concrete in accordance with the standard	FOX EPOTHANE® PRIMER, FOX EPOTHANE® PRIMER HB, FOX PURMAX® PRIMER 1K RAPID
Moist Substrates	FOX EPOTHANE® PRIMER WB
Moist Substrates (with Humidity Barrier)	FOX EPOTHANE® PRIMER HB, FOX EPOTHANE® PRIMER HBF
Highly Porous Substrates	FOX EPOTHANE® PRIMER, FOX EPOTHANE® PRIMER SL
Highly Porous Substrates Moist Substrates	FOX EPOTHANE® PRIMER HB, FOX EPOTHANE® PRIMER HBF
Steel, galvanized steel and aluminium	FOX EPOTHANE® PRIMER HB, FOX EPOTHANE® PRIMER WA, FOX PURMAX® PRIMER 1K RAPID
Wooden boards and some special surfaces	FOX EPOTHANE® PRIMER, FOX PURMAX® PRIMER 1K RAPID
Asphalt and Bitumen membrane surfaces	FOX EPOTHANE® PRIMER SL, FOX EPOTHANE® PRIMER HBF, FOX PURMAX® PRIMER 1K RAPID, FOX PURMAX® PRIMER 1K
Re-application on application (Old-New)	FOX EPOTHANE® PRIMER WA, FOX PURMAX® PRIMER 1K RAPID
Non-Porous concrete and non-absorbent surfaces	FOX EPOTHANE® PRIMER SL, FOX EPOTHANE® PRIMER HBF, FOX PURMAX® PRIMER 1K RAPID, FOX PURMAX® PRIMER 1K
Ceramic, marble, granite and shiny surfaces	FOX EPOTHANE® PRIMER WA

The above values are theoretical and do not include the need for additional materials depending on surface porosity, profile, differences in leveling and weakening.

Surface Quality

Concrete substrates to be applied must be strong and have sufficient compressive strength (at least 25 N/mm^2), tensile strength must be at least 1.5 N/mm^2, and ground temperature must be minimum +5°C. It should also be noted that the dew point of the ground is above +3°C. The substrate should be clean, dry and free from all kinds of dirt, oil, grease, coating and surface curing materials etc.

Application Procedure

Substrate Preparation

Concrete substrates to be applied should be prepared in such a way as to obtain an open porous surface by removing cement grout by 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. For the surface repairs, filling the voids and smoothing the surface, the ground should be prepared by mixing 60-70 AFS (0,1-0,3mm) silica sand with **FOX EPOTHANE® PRIMER HB** primer.

Application Conditions

- Can be applied under +10°C.
- Relative air humidity should be 100% maximum.
- Pay attention 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 + 3°C minimum.

Watch Points in Application

Surface Temperature	; Minimum +5°C - Maximum +30°C
Ambient Temperature	; Minimum +5°C - Maximum +30°C
Material Temperature	; Minimum +5°C - Maximum +30°C

Mixing

Before starting the mixture, make sure that the product temperatures are between +15°C and +30°C. Mix A component **FOX EPOTHANE® PRIMER HB** with suitable mixer for 1 minute without dragging air. Then pour component B onto component A. Stir continuously for 2 minutes until you have a homogeneous mixture. If necessary, add 60-70 Afs (0,1- 0,3 mm) silica sand or other fillers after mixing A and B components. Stir for 2 more minutes until you get a homogeneous mixture. Avoid over mixing to minimize air entrainment.
Mixing tools: (300 - 400 rpm) electric mixer and epoxy / polyurethane resin mixing tip

Application

As Primer

Apply **FOX EPOTHANE® PRIMER HB** with roller, trowel or zero comb trowel. Make sure that the application is made on the whole surface without any gaps. Depending on the surface condition, apply two layers of primer if necessary. If an epoxy or polyurethane coating will be applied on it, while the material is still wet, Silica sand 40-45 Afs (0.3-0.5 mm) can be sprinkled on it.

As Surface Correction Primer

Rough surfaces need to be corrected before epoxy / polyurethane floor coating. Apply the **FOX EPOTHANE® PRIMER HB**, Silica sand 60-70 AFS (0,1-0,3 mm) mixture by scraping with a zero trowel according to the required thickness, taking into account the surface roughness.

As Mortar Coating / Repair Mortar

Apply **FOX EPOTHANE® PRIMER HB** and silica sand 60-70 AFS (0,1-0,3 mm), silica sand 40-45 AFS (0,3-0,5 mm), silica sand 15-25 AFS (0,7–1,2mm) mixture on the still sticky **FOX EPOTHANE® PRIMER** by using levelling laths. After a short waiting period, tighten the surface with a trowel or a Teflon coated finishing machine (usually 20 - 90 rpm).

Cleaning of the Tools

After the application, the tools and equipment used can be cleaned with solvent. **FOX EPOTHANE® PRIMER** HB can only be removed from the surface by mechanical methods after it hardens.

Watch Points

- Concrete surfaces to be coated with epoxy / polyurethane must be at least 3 weeks old before application, forming a vapour barrier layer on the floors that sit on the ground, and the roof, walls, doors and windows of the building have been made, the ambient and surface temperature must be at least +5°C and +30°C.
- The materials to be used must be brought to the application site 1-2 days prior and must adapt to the ambient conditions.
- In applications to be carried out in cold weather, the ambient and ground temperature should be increased, and the packaging should be prepared at +20°C - 25°C and ready for use in order to increase the processability of the products.
- Rain, dust, wind, animals and pests should be prevented from entering the building while the coating is fresh.
- In resin-based systems, pot life and curing times are affected by ambient temperature, ground temperature and humidity in the air. Curing slows at low temperatures, which increases pot life, over coating time and working time. Curing accelerates at high temperatures, which shortens pot life, over coating time and working time. In order for the entire product to complete its curing, the ambient and ground temperatures should not be lowered below the minimum temperature levels given. After the application is completed, the coating should be protected from direct water contact for at least 24 hours. If water contact occurs, there will be softening and blistering on the coating, which will cause the coating to lose its properties. Therefore, the coating should be completely removed and rebuilt.
- Consumptions are given for ideal conditions where ambient and surface temperatures are considered as 20°C. Actual consumption may vary depending on the surface structure and ambient temperature. It should be remembered that consumption will increase in bad surfaces and cold weather conditions.
- Mixing must be done with an electric mixer of 300-400 rpm and the specified epoxy / polyurethane resin mixing tip. In case of not mixing with the specified mixing tip, air will be dragged into the product, which will cause air bubbles to form on the coating after application.

Package

17 kg set
A Component; 12 kg tin bucket
B Component; 5 kg tin bucket

Shelf Life

When stored properly at room temperature, away from direct sunlight, between +5°C and +30°C, its shelf life is 12 months from the date of manufacture.

Storage

It should be stored in its original package, in a cool and dry place protected from frost. In short term storage, maximum 2 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, 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 brought to 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

The data contained in this technical document is based on our scientific and practical knowledge. SARTECH Yapı Malzemeleri San. ve Tic. Ltd. Sti is only responsible for the quality of the product. Except for the written suggestions about where and how the product will be used and / or results that may occur due to misuse, SARTECH Yapı Malzemeleri San. ve Tic. Ltd. Sti. cannot be held responsible. The responsibility for the correct application of our product lies with the user. Our company is only responsible for the quality of the product. This catalogue invalidates the information in the previous catalogue. Our company has the right to make changes in all kinds of information and content details in this catalogue. It is essential to check that the information in the catalogue is current and valid.