

INNO- SEAL FOX EPOCOTE® FS190

Epoxy Based, Two Component, Colored Topcoat to Protect Concrete and Steel

Description

FOX EPOCOTE® FS190 is an epoxy based, two component, waterproof coating material developed to protect concrete and steel.

In compliance with TS EN 1504-2 / Principle 1.3, 2.2, 5.1 and 8.2.

Fields of Application

- Indoor and outdoor areas, vertical and horizontal applications,
- Drinking water or pool balance tanks,
- In concrete or steel (metal) tanks,
- As chemical resistant coating in horizontal, vertical and overhead applications,
- Oil and fuel tanks,
- In hangars, sugar factories, energy stations and liquid storage areas,
- Used in aquariums and swimming pools.

As Wall Coating Only,

- Oil refineries and paper mills,
- In the beer, wine and fruit processing industry,
- Beverage and fruit juice industry,
- In the milk, cheese and yoghurt industry,
- In tomato paste and canned food industry,
- Meat and fish industry,
- Medicine, paint, paper, battery, fertilizer industry,
- Printing houses, hotel kitchens and laundries,
- Used in hospital laboratories, dining halls, wet areas and hygienic environments.

Advantages

- Does not contain solvent,
- Easy to apply,
- Glossy surface, easy to clean,
- Has anti-bacterial properties,
- Creates a surface structure that does not allow the formation of microbes and bacteria,
- Waterproof,
- Can be used safely in drinking water tanks,
- Has high mechanical strength,
- High resistance to chemicals,
- Resistant to sea water, hard water and sulphates,
- Resistant to pool chemicals,
- Meets the movements on metal surfaces.

Technical Data

Structure of Material		Component A	Epoxy Resin
		Component B	Epoxy Hardener
Color			White-Grey (RAL colors)
Adhesion Strength	EN 1542	To concrete 7 day	≥2,00 N/mm ²
		To steel 7 days	≥2,00 N/mm ²
Consistency			Brush Consistency
Application Time			45 minutes
First Curing		+35°C	12 hours
Fully Cured		+35°C	7 days
Dry Film Thickness			125 - 250 micron (at each layer)

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



Surface Quality

Concrete substrates to be applied must be solid and have sufficient compressive strength (at least 25 N / mm²). Tensile strength should be at least 1.5 N/mm², humidity maximum 4%, ground temperature minimum + 8°C. In addition, it should be noted that the dew point of the ground should be above + 3°C.

Application Procedure

Preparation of Substrate

Concrete Surfaces

Care should be taken to ensure that cement-based surfaces in contact with water of buildings are sound, dry, dust-free and clean. The surface should be thoroughly cleaned of all kinds of oil, grease, rust and paraffin residues that will weaken adherence and there should be no loose particles on the surface. The iron and wooden wedges on the surface should be removed and active water leaks, if any, should be blocked with **FOX PLUG FC340**. Existing gaps, uneven surfaces and corner edges (chamfering at least 4 cm) should be made with **FOX MORTAR FC188 T** repair mortar.

Steel Surfaces

All kinds of oil, grease and rust residues that will weaken adherence should be thoroughly cleaned and a suitable surface should be obtained by sandblasting. In cases where it is not possible to work with sandblasting, cleaning should be done with air scraper gun or bowl wire brush. In cases where the surface is greasy and oily, oil removers can be used. **FOX EPOCOTE® FS 190** should be applied to the surface immediately after cleaning. Exposing to corrosion of the surface must be prevented.

Mixing

FOX EPOCOTE® FS190 Component B is added slowly into **FOX EPOCOTE® FS190** Component A and mixed with an electric mixer at 400-600 rpm/min for 3-5 minutes until a homogeneous mixture is obtained. After resting for about 3-4 minutes and mixing again for 30 seconds, the material becomes ready to use.

Application

Coating

FOX EPOCOTE® FS190 can be applied with a velvet roll or special spraying machine. To obtain a complete coating, **FOX EPOCOTE® FS190** should be applied in two layers. Applying the second layer while the first layer is still damp is the best application method. If the application between coats exceeds 24 hours, the surface must be roughened.

Top Coating

When a new coating is required for reasons such as damage etc , the area to be treated should be thoroughly abraded with a wire brush or sandpaper to ensure sufficient mechanical adhesion. It should be reworked as if applying for the first time by cleaning the weak coating completely.

Cleaning of the Tools

Tools and equipment used after the application should be cleaned with solvent. **FOX EPOCOTE® FS190** can only be mechanically cleaned from the surface after hardening.

Consumption

For each layer, 200 - 400 gr/m²

Watch Points

- Concrete surfaces to be coated with epoxy / polyurethane must be at least 3 weeks old before application, creating a vapor 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 + 10 ° C and + 30 ° C.
- The materials to be used should be brought to the application area 1 - 2 days in advance and must be adapted to the ambient conditions.
- In cold weather applications, the ambient and floor temperatures should be increased, and the packages should be kept at + 20 ° C - 25 ° C and ready for use in order to increase the workability of the products.
- Rain, dust, wind, animals and pest must be prevented from entering the building when the coating is fresh.
- Pot life and curing times in resin based systems are affected by ambient temperature, ground temperature and humidity in the air. At low temperatures, curing slows down, which extends the pot life, the coating time and the working time. At high temperatures, curing is accelerated, which reduces pot life, 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 applied again.
- 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





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- remembered that consumption will increase in bad surfaces and cold weather conditions.
- Mixing must be done with an electric mixer of 300-400 rpm/minutes 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.
 - It is recommended to use **FOX MULTISEAL® FS478** or **FOX MULTISEAL®UV FS475** before using **FOX EPOCOTE® FS190** for water tanks, vibrating floors and surfaces that are thought to cause deflection. It has limited UV resistance. Please consult our Technical Service when spraying applications are preferred.
 - Being between 125 to 250 microns of **FOX EPOCOTE® FS190**'s dry film thickness is sufficient.

Package

5 kg Set

Component A; 4,36 kg tin bucket

Component B; 0,64 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 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, 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

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FOX EPOCOTE® FS190

Epoxy based, two component, waterproof coating material developed to protect concrete and steel.

Principles 1.3, 2.2, 5.1, 8.2

Determination of carbon dioxide permeability / $S_d > 50$ m

Determination of water vapor transition properties / Class III: $S_d \geq 50$ m

Capillary water absorption and determination of water permeability /
 $W < 0,1 \text{ kg}/(\text{m}^2 \cdot \text{h}^{0,5})$

Determination of adhesion strength by pull-off method /
Rigid Systems, together with the traffic load
 $\geq 2,0$ (1,5 min) N/mm²

Determination of abrasion resistance / < 3000 mg

Determination of resistance to impact / Class III: ≥ 20 Nm

Reaction to Fire / Class E

Dangerous Substances / According to item 5.3

