

INNO-FLOOR FOX HARDTOP® FF300

Quartz Aggregate Powder Surface Hardener

Description

FOX HARDTOP® FF300 is a single-component, ready-to-use, colored surface hardener consisting of cement, specially selected quartz aggregate, pigments, and additives, which is applied in powder form to freshly finished concrete and screed surfaces.

It complies with EN 13813:2002 CT-C50-F7-A12 requirements.

Fields of Application

- Indoor and outdoor areas,
- Warehouses and hangars,
- Garages,
- Open and closed parking lots,
- Shopping centers and public areas,
- Factories and workshops.

Advantages

- Easy to apply.
- The treated surface is 2-4 times more durable than normal concrete surfaces.
- Thanks to the modified polymers it contains, it absorbs the water from the concrete floor it is applied to and forms a monolithic structure with the concrete after finishing.
- Prevents dusting of the surface.
- Color options are available.
- It is easier to clean than a standard concrete surface.
- It is resistant to freeze-thaw effects.

Technical Properties

Material Structure		Special cement, modified polymer, pigment, and quartz aggregate
Color		Natural gray, anthracite, green, red, special colors
Compressive Strength	EN 13892-2	50-60 N/mm ² – (C50)
Flexural Strength	EN 13892-2	7.5 N/mm ² (F7)
Abrasion Resistance	EN 13892-3	7.5 cm ³ /50cm ² (A12)
Fire Reaction	EN 13501-1	A1 _n
Elasticity Modulus	EN 13412	22900 N/mm ²
MOHs Hardness		7
Designed Thickness Limit		2,5 mm
Floor Temperature		+5°C / +30°C
Service Temperature		-20°C / +80°C

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

Application Procedure

Surface Preparation

The compressive strength of the concrete to be applied must be at least 25 N/mm² (C25). For best results, concrete slump values should be between 75-100 mm. The concrete must contain sufficient cement (300-350 kg/m³) and the floor thickness must be at least 15 cm. Air-entrained concretes are not suitable surfaces for applying surface hardeners.

Primer

In monolithic screed applications, to ensure adhesion between the old concrete and the screed, **FOX BINDER FM125** should be applied as a primer on the roughened concrete surface before proceeding with the pouring process. In floating screed applications, a polyethylene sheet should be laid over the old concrete to prevent the screed concrete from adhering to the old concrete.



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Surface Hardener Application

Before application, approximately 5x5 cm of concrete should be cut along the joint edges and removed with a trowel. The resulting voids should be filled with **FOX HARDTOP® FF300** mixed with a small amount of water to form a mortar. This process will prevent the joint edges from cracking under load. To prevent the aggregates in the product from separating, it should not be spread over long distances during application. The spreading process should begin once the concrete has hardened to the point where a footprint of ~0.5–1.5 cm depth remains when stepping on it. The material should be spread as evenly and homogeneously as possible over the surface without being piled up, and then leveled with a trowel. In the first stage, 2/3 of the total consumption should be spread. Afterwards, it should be spread with a squeegee, trowel, or machine. The material should be allowed to absorb the water from the concrete and become moist (change color), and the surface hardener should be integrated with the concrete by performing sufficient disk finishing (helicopter tray finishing). The remaining one-third of the material is spread over the surface in the same manner, and disk finishing is performed again. During finishing, any material that has overflowed or is in excess should be cleaned with a trowel. Finally, fine finishing (knife finishing) is performed until the surface reaches the desired gloss.

Watch Points

- Once the application is complete, a curing agent should be applied to prevent cracking and dusting. This improves the performance of the product. The curing process must be carried out in both summer and winter. For suitable curing products, please consult Fox Bau Technical Service.
- Once the concrete has hardened sufficiently, joints at least 4 mm wide should be opened at the joints. To prevent cracking and dusting, these joints should be filled with PU mastic.
- The surface hardener application should be timed according to concrete quality, weather conditions, and the concrete itself. In hot weather, the application should be done quickly; in cold weather, caution should be exercised as the setting time is longer.

Cleaning of Tools

Tools and equipment used after application should be cleaned immediately with water. **FOX HARDTOP® FF300** can only be removed from the surface mechanically after it has hardened.

Package

25 kg polyethylene reinforced kraft bag

Consumption

Depending on the intended use and traffic load, 4-8 kg/m². For light-colored applications, no less than 7 kg/m² should be used.

Shelf Life

When stored properly at room temperature, away from direct sunlight, between +5°C and +30°C, the shelf life is 12 months from the date of manufacture. Once opened, the packaging should be resealed and consumed within one week.

Storage

It should be stored in its unopened original packaging, in a cool and dry environment, protected from freezing. For short-term storage, no more than 3 pallets should be stacked on top of each other, and shipments should be made using the first-in, first-out system. For long-term storage, pallets should not be stacked 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. Fox Bau Yapı Kimyasalları A.Ş. 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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