

# INNO-FLOOR FOX HARDTOP® FF300

## Quartz Aggregate Powder Surface Hardener

### Description

**FOX HARDTOP® FF300**, one component, colored, ready-to-use surface hardener consisting of cement, specially selected quartz aggregate, pigment and additives, and applied by sprinkling in powder form on freshly polished concrete and screed surfaces.

### Fields of Application

- Indoors and outdoors,
- In Warehouses and Hangars,
- In garages,
- In open and closed car parks,
- Shopping malls and public areas,
- Used in factories and workshops.

### Advantages

- Easy to apply.
- The applied surface is 2-4 times more durable than the normal concrete surface.
- Thanks to the modified polymers it contains, it absorbs the water of the floor concrete on which it is applied and forms a monolithic structure with the concrete after polishing.
- It prevents the surface from dusting.
- Color options are available.
- It is easier to clean than normal concrete surface.
- Resistant to freeze-thaw effect.

### Technical Properties

Structure of Material		Special cement, Modified Polymer, pigment and Quartz aggregate
Color		Natural Grey, Anthracite, Green, Red, Special Color
Compressive Strength	28 days	80 N/mm <sup>2</sup>
Abrasion Resistance	EN ISO 5470-1 / Taber	1 kg 1000 rev. / H22 disk (weight loss) / 69 mg
Application Surface Temperature		+5°C / +30°C
Service Temperature		-20°C / +80°C

The above values are given at +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/mm<sup>2</sup> (C25). To achieve the best results, concrete slump values should be between 75-100 mm. The concrete must contain sufficient cement (300-350 kg/m<sup>3</sup>) and the floor thickness must be at least 15 cm. Air entrained concretes are not suitable surfaces for applying surface hardener.

#### Primer

In monolithic screed applications, **FOX BINDER FM125** should be applied as a primer on the roughened concrete surface before starting the casting process to ensure adherence between the old concrete and the screed. In floating screed applications, a polyethylene cover should be laid on the old concrete to prevent the screed concrete to be poured from sticking to the old concrete.

#### Concrete Pouring

In accordance with the project, molds should be placed according to the determined areas. Before pouring concrete, **FOX HARDTOP® FF300** bags should be arranged on the main edges in accordance with the consumption foreseen in the project. The thickness of the screeds on which **FOX HARDTOP® FF300** will be applied must be over 7 cm, the water/cement ratio must be over 0.45 and the concrete class must be at least (C25). When pouring concrete between slabs, the concrete should be compacted using a vibrating gauge. Before water appears on the concrete surface, necessary corrections must be made using a control gauge and wooden trowel. Water that rises to the concrete surface should be removed by sweeping it with a long-armed wooden jig.

#### Surface Hardener Application

The amount of **FOX HARDTOP® FF300** to be used on the plaster strip to be applied should be placed aside. Before the sprinkling application, concrete with a triangular section of approximately 5 x 5 cm should be removed with a trowel



along the joint on the edges of the plaster strip. **FOX HARDTOP® FF300**, made into a mortar with very little water, should be applied with a trowel instead of the received concrete. This process will prevent the joint edges from breaking under load. **FOX HARDTOP® FF300** should not be sprinkled over long distances to prevent the aggregates inside from separating. Depending on the environment and weather conditions, the sprinkling process should be started after the concrete has hardened enough to leave a 0.75-1.0 cm deep footprint when walking on it.

The material should not be poured into heaps on the plaster strip, it should be sprinkled as homogeneously as possible and smoothed with a check pass. In the first stage, 2/3 of the total consumption should be sprinkled on the concrete surface and spread with a check pass or with the help of a machine. It should be waited for the spread material to absorb the water of the concrete and become moist (change color) and the surface hardener should be integrated with the concrete by applying sufficient disc polishing (helicopter tray polishing). Then, the remaining material should be spread on the concrete surface as in the first application and the same processes should be repeated. While polishing the disc, the surface material that overflows onto the previously poured on plaster strip must be constantly cleaned with a spatula. Otherwise, there will be a difference in level between the two panels and a bad joint appearance. After coarse polishing, fine polishing should be done. Fine polishing is polishing done with a knife. Blade polishing should be done until the desired shine is achieved.

After the surface hardener application is completed, a curing material should be applied to the surface to prevent shrinkage cracks and ensure dust-free. Thus, **FOX HARDTOP® FF300** provides the desired maximum performance. Curing application must be done in summer and winter. SARTECH Yapı Malz. San. ve Tic. Ltd Şti. Technical Service should be consulted for suitable curing materials.

After the concrete has hardened sufficiently, the joints of the tiles must be cut to a width of at least 4 mm to create joints. The joints created should be filled with PU mastics to prevent negative effects such as breakage and dust formation caused by the joints. Surface hardener application is done at varying timings depending on the quality and type of concrete to be applied, weather and environmental conditions. The application speed increases in hot weather, and the application rate decreases in cold weather. During application, attention should be paid to the setting stages of the concrete.

### Cleaning of Tools

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

### Package

25 kg polyethylene reinforced kraft bag

### Consumption

4-8 kg/m<sup>2</sup> depending on the intended use and traffic load. In light color applications, less than 7 kg/m<sup>2</sup> should not be used.

### Shelf Life

When stored correctly at room temperature, between +5°C and +30°C, away from direct sunlight, the shelf life is 12 months from the date of production. Opened packages should be closed and consumed within 1 week.

### Storage

It should be stored in its unopened original packaging, in a cool and dry environment, protected from frost. For short-term storage, a maximum of 3 pallets should be stacked on top of each other and shipment should be made on a 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 storage and application areas with fire. Storage and application areas should be ventilated. During application, work clothes, protective gloves, glasses and masks in accordance with occupational and worker health rules should be used. It should not be contacted with skin or eyes during storage and application. In case of contact, it should be washed immediately with plenty of water and soap. If swallowed, a doctor should be consulted immediately. Food and beverage materials should not be brought into application areas. It should be stored in places inaccessible to 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 Malz. San. ve Tic. Ltd. Şti. is only responsible for the quality of the product. Our company cannot be held responsible for the consequences that may occur due to incorrect use and/or other than written recommendations regarding where and how to use the product. For detailed information, you should refer to the safety data sheet and technical data form or contact our company officials.

