



7020

Corundum Aggregated Surface Hardener



Product Code : 7020

Quality Certificates

The product conforms to the EN 1504-2 and EN 13813 standards.

Description: A powder surface hardener which is applied as monolithic on fresh concrete surfaces. Resistant to abrasion and is a mixture of special type cement, high quality corundum aggregate and performance increasing chemical additives. Provides resistance to wearing, impact, dusting and abrasion for light, moderate and heavy loads on concrete surfaces.

Application Areas: Indoor and outdoor, factories, business centers, commercial storages, garages, parking lots and basement floors, mechanical workshops, power stations, shipyards and loading docks, subway stations and underground passages, parks and gardens, pedestrian ways and pavements, heliports and airfields.

Advantages:

- Applied on fresh concrete as monolithic.
- The resistance of Falcon Corundum Aggregated Surface Hardener applied concrete surface to abrasion is 4 – 6 times higher than the plain concrete.
- Becomes part of the surface where applied, does not wear and come off.
- Economical and long lasting.
- Ready-to-use. Saves considerable time as it is quick and easy-to-apply.
- Provides resistance to wearing and impact on concrete surfaces and groyt sides.
- Makes the surface resistant to weathering and freeze-thaw cycles.
- Allows to clean the surface easily and more resistant to oils than plain concrete.
- Does not oxidize.
- Provides a higher impermeability compared to plain concrete.

Preparation of the Surface: In case Falcon Corundum Aggregated Surface Hardener is applied on old concrete, C 25 type concrete should be poured with minimum 7.5 cm thickness. In order to increase the adherence and provide bonding between fresh and old concrete, Mortar and Screed Admixture with Bonding Properties must be used. The concrete must be wet enough for Falcon Corundum Aggregated Surface Hardener to absorb the required moisture. Wetness level of the surface is very important. If the surface is wetter than necessary, Falcon Corundum Aggregated Surface Hardener disappears within the thickness of the concrete and loses its effect. If the surface is drier than necessary, the product does not bind to the surface and the result is negative.

Application Information: Straightedges of 4 - 5 m width are placed in the order of one empty and one full section, depending on the size of the floor. When required, mesh reinforcement is placed inside the sections with straightedges and leveling process is completed. In order to have Falcon Corundum Aggregated Surface Hardener broadcasted evenly on the surface; sprinkling operation has to be implemented from both sides of the section. Concrete is floated after being poured and overall settling is obtained with a vibrating float. Once the concrete setting is firm enough to obtain a footprint of maximum 2 - 3 mm depth, 1/2 of Falcon Corundum Aggregated Surface

Hardener can be applied proportionately on the surface by hand or with a mechanical sprinkler system. Allow the material to absorb surface moisture and acquire a dark color. Attention must be paid that the floor acquires the same color all over the surface. Incorporation is obtained by floating the material thoroughly with a float. Certain amount of material is sprinkled as a band of 8 cm on the sides of the straightedged sections and dilatation joints that are exposed to the heaviest loads and floated with a float. 1/2 of the remaining material is spread on the surface by sprinkling, allowed to acquire a dark color and floated with a float. When the surface is firm enough to walk on, finishing can be done with a steel float (helicopter).

Curing: After the application, curing compounds should be used for the concrete to be cured.

Cutting Joint: Joint cutting operation has to be completed latest 2 - 3 days after pouring the concrete. Joints have to be filled with Polyurethane Sealant and Polyethylene Backer Rod.

Consumption: Light and moderate loads: 5 - 6 kg/m²; Heavy loads: 7 - 9 kg/m²

Caution: Avoid application in temperatures below +5°C and above +35°C. Avoid application on frozen areas, on areas under risk of freezing in 24 hours or on areas open to direct sunlight or wind. Avoid excessive floating. In order to avoid separation of corundum aggregate from cement, the product should not be thrown far during the application. Before the application of Falcon Corundum Aggregated Surface Hardener, do not float the surface with steel float blades or disc floats. The values mentioned above are obtained at 23±2°C and 50±5 relative humidity conditions.

Packaging: 25 kg craft bags

Shelf Life: Unopened packages can be stored in dry environments for up to 12 months, stacked maximum 10 packages on a pallet.

Health and Safety: As with all chemical products, contact with food, skin, eyes and mouth should be avoided during usage and storing. If swallowed by accident, consult a doctor. In case of contact with skin, rinse with plenty of water. Keep out of reach of children.

Technical Properties	
Appearance	: Red/Green/Grey colored powder
Application Temperature	: Between +5°C and +35°C
Aggregate Hardness	: 9 Mohs Scale
Determination of Wear Resistance to Rolling Wheel	: ≤ 1 cm ³ (TS EN 13892-5)
Compressive Strength	: ≥ 80 N/mm ² 28 Days (TS EN 13892-2)
Flexural Strength	: ≥ 10 N/mm ² 28 Days (TS EN 13892-2)

Application instructions and technical data provided for the products are obtained in line with our experience and the tests we implemented according to international standards under ambient temperatures of 23 ± 2 °C and ambient relative humidity conditions of 50%±5. Higher temperatures decrease the times and lower temperatures increase them.

