

DensiCoat®

Surface Hardener / Liquid

DensiCoat is a surface hardener of concrete and a solution of silica salts in water that penetrates the surface of the concrete and reacts with the free lime of the pores of the concrete surface and improves the surface compaction significantly. The resulting reaction increases the strength of the concrete against chemical substances and acids and prevents forming dust on the surface as well as increasing the strength and stiffness of the surface of the concrete.

The efficiency of this product is evaluated based on the requirements of Grade (I) PR of the EN 1504-2 Standard. Also, the physical and chemical properties of DensiCoat are according to the following table:

Physical State	Dense Liquid
Color	Yellow
Specific Weight	1/45 ± 0/05 g/cm ³

The usage and effect of the product on the concrete

The usage of the surface hardener product

- Different types of concrete structures and cement surfaces
- The old or new horizontal concrete surfaces that a hard surface with an abrasion resistance of light to moderate is required.
- The concrete surface of the warehouse, industrial factories, stores, shopping malls, parking, etc.
- Developing a non-dust property for the precast concrete elements

The advantages of using the surface hardener

- It is ready and easy to use
- It increases the stability and strength of the abrasion resistance on the surface of the concrete
- It increases the strength of the surface of the concrete against chemical substances
- It reduces the dusting of the concrete surface
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- It reduces the permeability of the concrete surface against water
- It does not have a negative effect on the concrete surface and improves the durability of the surface of the concrete
- It is not flammable
- It helps the curing of the concrete

The instruction to use the hardener

The allowable range and instruction to use the hardener

- 1- **The amount of usage:** the amount of using this product depending on the concrete quality is as follows:

The meterage of the covering per liter	The volume ratio of the water to hardener	Properties of the concrete	The number of times of covering
3 to 6 square meters	First covering: 4 to 1 Second covering: 3 to 1 Third covering: 2 to 1	Porous and average stability	3
6 to 8 square meters	First covering: 4 to 1 Second covering: 3 to 1	Dense	2
20 to 25 square meters	5 to 1	The surfaces with high quality	1

2- Preparing the surface: It is necessary to wash and clean the surface from dust, any chemical contaminations, and oil. In case of using any curing material, it is necessary to wipe them off from the surface. The joints and cracks must be filled with a suitable repair material like SoftCoat. Dry the water on the surface before covering it. To reach better quality, it is recommended that the concrete is at least in its 14 days.

3- Implementation: The amount of the used material is calculated based on the desired surface and must form a solution in a mixer with a suitable amount of water. It is necessary to accomplish covering 1 to 3 times on the surface depending on the type of concrete. The covering is feasible by spraying, brushing, or wiping. Prevent the aforementioned solution to be accumulated in a bulk form and cleaned it from the surface immediately. The surface needs 6 to 12 hours to dry and the second and third times covering must be accomplished after the first time covering is dried if necessary. The penetration of the next time is accomplished at a slower rate; therefore, it is better to wash the surface with clean water before the next time for covering.

Safety tips while using the hardener material

This product is a combination of mineral salts soluble in water and is not flammable. The steam from this product is dangerous and the user must use a mask while working. This product is highly Alkaline and harmful in contact with the skin. Therefore it is necessary to use suitable goggles and gloves while working. It is also necessary to take the following tips into consideration:

- Blink in water for at least 15 minutes in case of eye contact
- Wash your skin with clean water for 15 minutes in case of any contact with the skin

- The contaminated clothes must be washed with suitable detergents to be usable for further work.
- It is necessary to visit a doctor if the injured individual still feels uncomfortable

Other necessary notes about the product

Contact with other surfaces

Prevent any contact of this product with steel and glass surfaces. In case of any contact, wash the surface with water immediately.

The corrosion of admixture

This product does not start or extend corrosion in the buried bars in concrete, the pre-stressed steel, floor systems, and the roof made of galvanized steel.

Transportation and storage of the admixture substance

The conditions and maintenance temperature of transportation

The allowable transportation and maintenance temperature of this product is between 5 and 30 °C. It is also necessary to consider the following tips:

- Avoid putting the container having the admixture in direct exposure to sunlight
- Prevent the product from freezing

The hardener lifetime

If the containers of this product are conserved and stored in a standard condition, they will be usable for 12 months.

The packaging of grout

This product is supplied in 28 Kg gallons, and 1300 pallets.

Complementary information

Contact the technical section of Capco Company for complementary information. You can also refer to the performance form of (DensiCoat - PPI) DensiCoat for more information on the performance of this product.