

CONCRETE P HYDROPHOBE

SPECIAL MASONRY WATER REPELLENTS



Product description

CONCRETE P HYDROPHOBE is based on a solventless silicone microemulsion concentrate of silanes and siloxanes and on a special photocatalytic Titanium Dioxide useful to obtain a high photocatalytic effect, such to make the treated surfaces self-cleaning, water-repellent and NOx eating. CONCRETE P HYDROPHOBE is used in a ready to use form for the hydrophobic priming and impregnation of concrete and masonry mineral building materials.

It serves as high quality, general purpose water repellents for impregnating and priming mineral surfaces.

Special features

CONCRETE P HYDROPHOBE is characterised by:

- good depth of penetration
- resistance to alkalis
- rapid development of water repellency
- "Self-Cleaning" properties
- water based and environmentally compatible
- stable in storage

Treated surfaces will have the following permanent properties:

- reduction in chloride and water absorption
- limited loss in breathability
- enhanced durability
- photocatalytic action

Application

CONCRETE P HYDROPHOBE is an excellent water repellent for many absorbent mineral substrates, such as bricks, sand-lime brick, natural sandstone and mineral plasters. It is not so suitable for less absorbent, dense natural stone, especially limestone, marble and reinforced concrete for bridges and roads.

Processing

The work performed (preparing the concrete surface, setting up a reference surface, application and quality control) must follow the applicable regulations.

- Concrete should not be impregnated until at least four weeks after it has been produced so that the setting of the cement is not affected.

- New surfaces that are still unsoiled must be cleansed of coarse particles and dust deposits by sweeping or, if necessary, using compressed air. Surfaces already weathered, and those heavily soiled by oil, rubber residue, etc., must first be cleaned using superheated steam or high-pressure water before commencing treatment. It is imperative that the water used be siphoned off immediately to prevent saturation of the concrete.

- Impregnation should always be performed on superficially dry concrete, i.e., when the surface of the concrete appears evenly dry, no more damp patches are visible and the moisture content equilibrium is established. To this end, moisture in the surface zone of the concrete is measured using a suitable technique.

The surface-zone moisture content of the concrete (from the surface to a depth of 20 mm) should not exceed 4 wt%.

- Evenly apply the impregnating agent to the building material in two coats, wet-on-wet. The two coats are absolutely essential to prevent the formation of defects in the impregnated surface. Do not allow puddles to form. The impregnating agent is applied by flow coating at reduced pressure. A lambskin roller may be used afterward for more even coverage.

- In the event of unexpected rain, cover surfaces already impregnated and halt all further impregnation.

- CONCRETE P HYDROPHOBE should never come in direct contact with bitumen.

CAUTION

Concrete P HYDROPHOBE should always be applied under trial because it can change the colour aspect of the surface.

New Functionalities to Improve Air Quality

Photocatalysis is a natural reaction occurring in presence of light, water and oxygen. The reaction is accelerated by a catalyst (Titanium dioxide – TiO₂) and it is activated by the energy of the UV light (“photo”). When the treated with Concrete P surface is exposed to UV light, electron-hole pairs are generated, facilitating reduction and oxidation reaction through the formation of adsorbed free radicals on Concrete P surface. These radicals are extremely highly reactive species, capable to degrade the pollutants hitting or absorbed onto the photocatalytic surface: the reaction of degradation converts harmful materials, such as nitrogen oxides, sulphur oxides, VOC (volatile organic compounds) into harmless substances. The catalyst used in the formulation of Concrete P HYDROPHOBE is not consumed by this reaction, ensuring a continuous process during the service life of a photocatalytic surface.

Concrete P HYDROPHOBE has the following features:

- an excellent self-cleaning action of the treated surface
- a remarkable reduction of pollutants such as NO_x and SO_x
- anti-algae and fungi resistance

Storage

The containers must be protected against sunlight.

The 'Best use before end' date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from Abolin Co Greece subsidiaries.

Product data

Typical general characteristics	Inspection Method	Value
Appearance		milky, white
Active content		approx. 10 wt. %
Density at 25 °C		approx. 0,95 g/cm ³
Viscosity, dynamic at 25 °C	DIN 51562	12 mPa.s
These figures are only intended as a guide and should not be used in preparing specifications		

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

The management system has been certified according to EN ISO 9001

Abolin Co Greece 18 Galaxia Str. Afaia Skaramaga Haidari 12462

Tel: 0030 210 5575568 Fax: 0030 210 5570616

EMAIL: abolin@abolinco.com WEB: www.abolinco.com