

**Protective hydrophobizing and re-alkalising product for concrete structures,
Complies to principle 11 of EN 1504-9 method 11.3
(applying inhibitor to the concrete)**

Description

Hydrophobizing product in aqueous dispersion for the protective treatment of cement structures, thanks to special catalysers, it is able to penetrate up to 40 millimetres of depth into the concrete, sealing its porosities and becoming a permanent barrier over the time (it seals the cracks which are present at the moment of the treatment, keeping them sealed even during possible subsequent dilatations).

Thanks to its composition, in addition to hydrophobise the support, Kimicover PF allows to obtain a rapid and effective re-alkalisation of the support.

The product complies with the requirements preview for impregnation products for the protection of concrete to be used in buildings and works of civil engineering, complying to principle 11 of EN 1504-9 method 11.3 (applying inhibitor to the concrete).

Uses

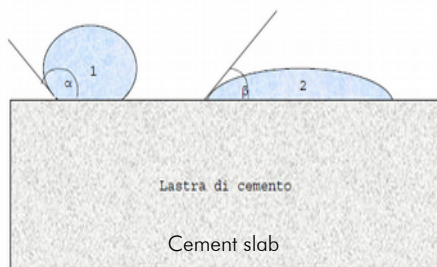
- Protective anti-deterioration treatment, anti-mould and anti-carbonation of concrete works, on retaining walls, in continuous foundations and in foundations' feet, on concrete submitted to hard climatic conditions, on raw concretes (béton brut), in any situation in which it is necessary to increase durability in concrete works.
- Re-alkalising treatment to be applied to the substrates before the subsequent application of Betonfix range restoration mortars or protection treatments with Kimicover and Kimitech resins.

Advantages

- It lets surfaces free to perspire
- Inhibiting the penetration of humidity and other fluids inside the casting, it effectively increases the concrete durability to freeze-thaw cycles and to chemical aggressions (chlorides)
- Excellent anti-carbonation action
- It keeps a stable alkaline environment over the time, which thus protects the reinforcement rod
- Easy and rapid application
- Odourless, colourless, non-toxic product
- Low content of volatile organic compounds

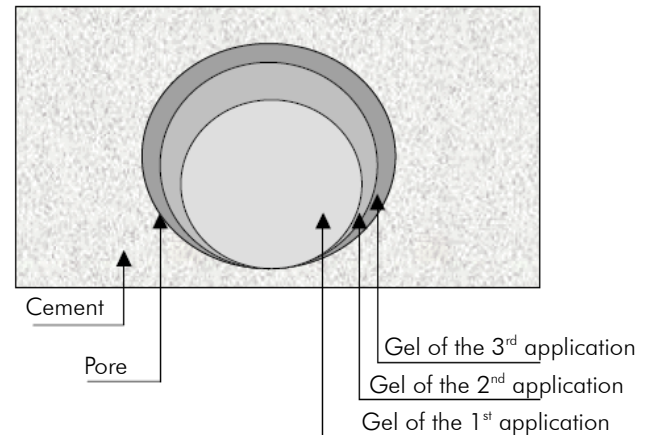
Working principle

The product reacts with free calcium ions present in the hardened concrete (in case of very old concretes with few free ions, it is recommended to proceed washing it with a Ca^{++} salts based solution) creating a resistant gel which is inaccessible to water and other liquids, but permeable to vapour.



After the treatment the treated surface tends to repel water, Preventing it to penetrate (case 1), instead of favouring the penetration As it would do in standard conditions (case 2)

The product is applied in more subsequent coats. Why?



The gel formed during the first coat, contract itself of 20%, leaving the gaps filled for the 80% of the initial volume.

After the second coat the pores remain empty for the 4%.

With the third coat the residual gaps, after the gel contraction amount to 0.8%.

Application

The supports must be cleaned from dust, oils and grease, without rising damp and without already detached inconsistent parts. They must be dimensionally stable and without cracks.

Paint, varnish and concrete release agents' traces must be completely removed.

The ready to use product can be applied in two layers with low pressure spray pump, with roll or paintbrush, after having washed with water the surface to be treated 6-8 hours before application and having let it dry.

For the application of the second coat, and subsequently of the third coat, wait for the surface to be dry (about 12-24 hours).

Avoid superficial crusts of hydrophbizer to be formed, which would hinder the subsequent hydrophobizations.

Product curing takes place in 36 days, however the surface is already available after few hours (It will be possible to walk on it or to apply further coatings with plasters, etc...)

Consumption

The performance of the product for square metre varies according to the permeation capacity of the treated support.

It is a generally good rule to treat concrete up to saturation. The typical dosage varies between 0,25 and 0,5 l/m² as total of the two expected applications.

Storage

Protect from freeze; store at a temperature not inferior than +5°C. In such conditions and in hermetically sealed packages, Kimicover VF maintains its stability for 24 months.

Characteristics	Value
Colour	Transparent
Minimum application temperature	> 5°C
Walkability	A few hours
Complete curing	36 days
Environmental risk	Absent
Toxicity	Absent
Specific weight	1,15 Kg/dm ³
Carbonation UNI EN 9944	Total resistance
Freeze-thaw resistance UNI 7087/72	300 cycles without damages
Penetration in concrete	Up to 40 mm
Chemical resistance	Hydrogen chloride, sulphuric and nitric acid, sodium hydroxide

Characteristics UNI EN 1504-2	Value
Scrape resistance	> 30%
Capillary absorption	$W < 0,1 \text{ Kg/m}^2 \text{ h}^{0,5}$
Chemical resistance	No visible fault
Shock resistance	Class III, > 20 Nm
Adherence	> 1,5 MPa
Fire reaction	A1

Warning

Product intended for professional use.

Protect glass and aluminium during application (they are corroded by the product)

The technical specification and application methods recommended herein are based on our current knowledge and experience and do not represent any form of guarantee of the final result obtainable with the product.

It is the customer's responsibility to check that the product is suitable for the intended use and that this data sheet is still effective and has not been replaced by a more recent version.