

USES

- Penetrates deeply into dense concrete.
- Reduces application costs, only a single application is required.
- Simplified application on overhead and vertical surfaces due to its thixotropic properties.
- The product does not splash or run off uncontrollably on to the applicator.
- No pollution of waterways and atmosphere due to no run off and low evaporation.
- The quality of application can be easily monitored by measuring the wet film thickness.
- Reacts chemically with the concrete to form a hydrophobic salt-resistant layers
- It has been successfully applied to several reinforced concrete structures including bridges, piers and building in Australia and other countries
- Protekta Silane Cream 80, which reduces water absorption over 98.3% depending on the surface and the chloride ion absorption rate is reduced by over 96-99% depending on the surface

DESCRIPTION

Protekta Silane Cream 80 is an alkytrialkoxo silane formulated as a water-based environmentally friendly non-drip, thixotropic cream. The low molecular weight, low volatility and cream consistency of Protekta Silane Cream 80 ensure deep penetration and high quality water repellency in even the most dense concrete. Once the product has been applied to the concrete surface, it penetrates into the substrate and polymerizes forming a permanent hydrophobic layer, which resists water, chloride ion and other pollutants.

The Protekta Silane Cream 80 is a new concept that overcomes the problems associated with liquid silanes such as isobutyltriethoxysilane. Protekta Silane Cream 80 can be applied to any surface including overhead, vertical and horizontal without run off. The silane gel remains on the surface for up to 60 minutes ensuring deep and even penetration into the concrete. The high penetration depths achieved are due to the low volatility of the silane gel,

combined with the long contact time with the surface.

APPLICATION

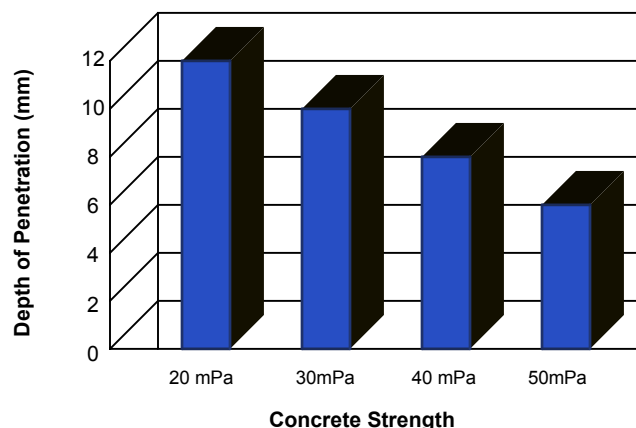
Protekta Silane Cream 80 should be applied to dry concrete surface by airless spray application or brush. One coat of 200 up to 400 microns thickness (200 to $400\text{ml}/\text{m}^2$) is usually sufficient for concrete of strengths up to 50 mPa. Depending on the depth of impregnation specified and density of the concrete, the application rate may vary significantly.

However, in order to ensure the high penetration depth, enough Protekta Silane Cream 80 should always be delivered on to the surface. A maximum wet film thickness should be controlled so that the wet cream can stay on the surface without run off. The cream should stay on the surface until it is totally absorbed by the concrete. If the concrete is of high density and less permeable, no more than $200\text{ml}/\text{m}^2$ of Silane Cream 80 may be applied. A second coat of Silane Cream 80 may be needed after the first coat is dry. This is to ensure the high depth of impregnation, although the 2nd coat is usually unnecessary.

PERFORMANCE

DEPTH OF IMPREGNATION

Protekta Silane Cream 80 penetrates evenly and deeply into high quality concrete. A single application of $200\text{ml}/\text{m}^2$ can penetrate up to 12mm into 20 mPa concrete. Figure below shows the penetration depth of solid silane with concrete of different strength.



WATER AND CHLORIDE ION EXCLUSION

Protekta Silane Cream 80 significantly reduces the water and chloride ion absorption of the treated concrete. Table below shows that the water absorption rate of Protekta Silane Cream 80 treated concrete is reduced by over 94% comparing to that of untreated concrete. The chloride ion absorption rate is reduced by over 96%.

Reduction of Water and chloride ion absorption

	Water absorption	Chloride ion absorption
% Reduction of absorption rate by weight	98.3%	>96-99%

TECHINCAL DATA

Appearance : White cream
Alkylakoxy Silane Content : 80%
Density : 0.9-0.91 gm/ml
Flash point : >63^oC
pH value : 7-8
Solubility in water : Miscible

IMPORTANT NOTE

Protekta products are non-hazardous when properly handled, stored and applied. When handling suitable protective clothing should be worn. The materials should not be ingested, inhaled or make skin contact. MSDS are available.

WARRANTY:

The information given in this data sheet is based on many years of experience and is correct to the best of our knowledge and should be used only as a guide. Tech Dry (India) Pvt Ltd reserves the right to alter certain product parameters within the spectrum of properties in order to keep abreast of technical advances. The information in this document is based on the present state of our knowledge and is applicable to the product. Tech Dry (India) Pvt Ltd is responsible for the quality of the product at the time of despatch but is not responsible for its quality after subsequent storage, handling and application. Neither Tech Dry (India) Pvt Ltd nor its associated companies shall be held liable for any damage resulting from the handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

COVERAGE

Very porous : 20 sq. ft per ltr
Porous : 30 sq. ft per ltr
Dense : 50 sq. ft per ltr
Very dense : 80 sq. ft per ltr

SHELF LIFE: 6 months in a closed uncontaminated container and should be used before the use-by-date printed on the container. However if the product is passed its used-by-date it is not necessarily unusable. A quality control should be performed on the properties relevant to the application or otherwise contact the manufacturer for further advice

STORAGE: To be stored in closed containers in a cool place and prevent from extremes of heat

HEALTH & SAFETY: Non-Hazardous, Non-toxic, Non-flammable

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