Technical Data Sheet

Betsilan Creme

High-quality, water-repellent cream for hydrophobic impregnation of concrete

PRODUCT DESCRIPTION

Betsilan Creme is a water-based, creamy, solvent-free impregnant based on NANO technology and silane. It is a high-quality specialty product that can be used for the hydrophobic impregnation of both regular concrete and reinforced concrete

TYPICAL APPLICATIONS

- Concrete and reinforced concrete
- Bridges and tunnels
- Roads and roadside concrete structures
- Infrastructure

BENEFITS & ADVANTAGES

- Water-repellent effect
- High resistance to alkaline attack
- Penetrates deeply into mineral substrates
- Does not form sticky silicone films
- Transparent and water vapor permeable
- Significantly reduces the absorption of water-soluble pollutants (e.g., chloride)
- High resistance to freeze-thaw stress
- Easy application to vertical surfaces without running off or loss, thixotropic
- Easy to apply
- Provides good adhesion to paints

TYPICAL PROPERTIES

Betsilan Creme is a unique impregnant due to its thixotropic properties. The product has excellent ability to impregnate high-quality concrete and reinforced concrete. Unlike conventional liquid products, Betsilan Creme can be applied to the surface in a single layer with the desired thickness (a maximum of two layers). The active silane ingredient penetrates the substrate from 30 minutes to several hours, depending on the porosity and quality of the concrete. During the reaction with the substrate, ethanol is released, and the substance transforms into a polymeric silicone resin. Initially, a creamy layer forms, but it disappears completely later. Since the active ingredient is the same as in conventional liquid impregnants, impregnation with Betsilan Creme does not clog pores or capillaries and does not affect the breathability of the concrete

Betsilan Creme is designed to penetrate deeply into the concrete to provide optimal protection against water, pollutants, and freeze-thaw cycles. This effect should not be confused with the 'beading' effect often associated with impregnating agents, which is commonly referred to as water repellency. Beading is merely a surface phenomenon and plays a secondary role in protecting the substrate. Concrete treated with Betsilan Creme initially shows a moderate beading effect, but this increases once the surface becomes wet.

Property	Unit	Value
Active Content	%	80
Appearance		Yellowish, white paste
Density	g/cm³	0.90 (25°C)
Flash Point, min.	°C	64

HANDLING & PROCESSING

Before applying Betsilan Creme, allow the concrete to dry properly for at least 4 weeks to remove any moisture. The surfaces to be treated must be clean and dry. Sandblasting or a pressure washer can be used as a surface cleaning method.

Impregnation can only be done once the concrete surface is superficially dry. To ensure this, a suitable technique should be used to measure the moisture content in the surface layer of the concrete. The moisture content in the concrete surface should be below four mass percent.

During application the outside temperature and the temperature of the substrate should be within the range of +5°C to +25°C.

Betsilan Creme is applied to the concrete with an airless sprayer, undiluted, and at the desired thickness. For smaller surfaces, a brush or roller can be used.

The silane active ingredient penetrates the substrate within 30 minutes to two hours. The exact time depends on the porosity and quality of the concrete.
On vertical surfaces and roofs, up to 400 g/m² can be applied at once without material loss. The exact amount depends on the absorbency of the substrate. If a larger amount is applied, Betsilan Creme may liquefy on the surface and start to run off.
Usually, one layer of Betsilan Creme is sufficient, but a second layer can be applied if necessary.

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Surfaces treated with Betsilan Creme should dry for at least 24 hours. During the drying process, the treated surface must not come into contact with water.

Avoid direct contact between Betsilan Creme and bitumen. Compatibility with insulation materials must be tested beforehand.

DOSAGE

Vertical and horizontal surfaces can be covered with up to 400 g/m² at once, without material loss.
The amount and concentration of Betsilan Creme applied depend on the absorbency of the substrate and the desired depth of penetration.

STORAGE

The product should be stored between +5°C and +25°C and protected from freezing. An opened container should preferably be used within three months.
Each batch has a 'Use by' date marked on the product label. Storing the product after the date indicated on the label does not necessarily mean that the product is no longer usable. However, in such cases, the product's properties should be checked to ensure they meet the intended use and quality requirements

HEALTH AND SAFETY

Before using the Betsilan Creme product, read the product's Safety Data Sheet (SDS) to obtain information on safety, toxicity, and proper transportation, storage, and usage.
The Safety Data Sheet is available on our website www.slprotection.eu or upon request from your local representative

PACKAGING

Betsilan Creme (cream) is available in 25 L containers

WASTE DISPOSAL

When disposing of waste, follow local waste management regulations and take hazardous waste to an appropriate collection point.

MANUFACTURER CONTACT

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Surface protection products
Hydrophobic impregnation

Betsilan Creme

Penetration depth	2. class, ≥ 10 mm
Water absorption coefficient	< 7,5 % compared to untreated test piece
Water absorption coefficient	< 10 % after impregnation in alkali solution
Drying speed of the hydrophobizer	2. class > 10 %
Dangerous substances	In accordance with 5.3

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