

BPA-CEMSIL SC-I

SILICON-IMPREGNATING AND INJECTION AGENT

Impregnating and Injection agent for unpressurised drill hole injection for wall draining or for surface protection of mineral materials against moisture, humidity or water uptake.

PRODUCT DESCRIPTION

CEMsil SC-I is a creamy, VOC-free impregnating agent based on Alkyl Alkoxy silanes. It offers comprehensive and permanent protection for masonry and facade against the ingress of water.

Due to its creamy consistency and the resulting excellent workability, CEMsil SC-I is suitable for a large number of areas of application that require reliable protection of absorbent, mineral building materials from moisture. In addition, CEMsil SC-I prevents the development of efflorescence and frost damage, destruction by water-soluble pollutants and attack by micro-organisms. The physical properties of the building, especially the water vapor permeability (sd value), are hardly influenced and the visual appearance is retained apart from a possible, slight deepening of the colour of the building material surface.



APPLICATION AREA

CEMsil SC-I was specially developed for the drying of masonry by means of pressureless drill hole injection and for use on mineral building material surfaces. CEMsil SC-I is suitable for all mineral and alkaline substrates and building materials that have a minimum of absorption capacity. CEMsil SC-I, on the other hand, is not suitable for building materials with little or no absorption capacity. Particularly in the case of very dense and naturally darker materials with little absorption capacity, strong and permanent darkening of the colour shade can occur on the surface of the building material. The use of CEMsil SC-I on these or similar materials is therefore not recommended.

FUNCTIONALITY

The method of application depends on the purpose for which the product is required.

Water repellency / facade impregnation:

CEMsil SC-I penetrates completely into the mineral building material within 30 minutes of application for a few hours and the milky-white cream layer usually disappears without residue and without any colour-intensifying effect on the building material surface, provided the building material has a minimum of absorption capacity. During the penetration time, however, there should be no external moistening of the building material (e.g. through rain), as the cream can be washed off in this state and thus rendered ineffective.

Wall draining / drill hole injection:

CEMsil SC-I is WTA-certified according to WTA-leaflet 4-4-04D and according to this certificate is suitable for use in masonry/concrete with a moisture penetration of up to 95%. The formation of a so-called horizontal barrier in the masonry/concrete prevents moisture from rising. The masonry above the injection level can dry out and the building is protected from renewed moisture penetration. In addition, we recommend supporting the drying process of the masonry with accompanying measures and counteracting the cause of moisture penetration.

Due to the good spreading ability and the fine division of the cream, it can spread perfectly in the masonry around the drill holes and thus form a gapless barrier against rising water. The cream is usually injected into the masonry above ground level (outdoors) or floor level (indoors).

PRODUCT FEATURES AND BENEFITS

- ◆ Drip-free application and therefore problem-free overhead work
- ◆ High active ingredient concentration (approx. 80 %)
- ◆ Alkali-stable
- ◆ Not film-forming
- ◆ High distribution capacity within the masonry structure
- ◆ High penetration depth due to the long dwell time of the cream on the surface of the building material
- ◆ Reduced material wastage
- ◆ Very good pumpability and consumption control
- ◆ Causes no deepening of colour or stains on suitable surfaces of building materials
- ◆ Certified for pressure-free masonry injection according to WTA leaflet 4-4-04D or 4-10-15/D with up to 95 % moisture penetration

DELIVERY FORM

| | BPA-CEMsil SC-I | Item number |
|--------------|---|-------------|
| Deliver form | Tubular bag (0,54 kg) Pallet of 60 boxes/12 tubular bags per box | 43-220 |
| Storage | CEMsil SC-I can be stored for 1 year if stored frost-free and protected from constant sunlight. The product can still be used after the storage period has expired. In this case, however, it is imperative to check the product for possible bacterial and fungal attack before use. | |
| Storage | Store in a cool and dark place. In order to avoid contamination with bacteria and fungal spores from the ambient air, only open the container when the product is used and then immediately close it again airtight. Use up the product quickly after opening the container for the first time. | |

TEST REPORTS

WTA-Certificate after WTA-leaflet 4-4-04D.

TECHNICAL DATA

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|------------------|------------------------------------|
| Working Material | High viscous Silane/Siloxane-Creme |
| Appearance: | White, creamy paste |
| Concentration: | approx. 80% |
| VOC-content: | VOC-free |
| Density (20° C): | approx. 0,9 g/cm ³ |

OTHERS

Processing instructions

When using the product as a waterproofing / impregnation for mineral surfaces as well as when injecting boreholes, care must be taken that CEMsil SC-I never comes into contact with bitumen or bitumen-like insulation or with synthetic resin or acrylate-based coatings such as concrete paint. Contact with other coating and insulation materials must also be avoided at all costs, as otherwise the coatings may be irreversibly detached or detached by CEMsil SC-I. If, despite all precautionary measures, contact between CEMsil SC-I and the coating should occur, we recommend removing the product immediately and with plenty of cold tap water without leaving any residue.

Application

Hydrophobing / facade impregnation:

CEMsil SC-I can be applied by rolling or brushing. Thanks to its creamy character, the product can be easily applied to vertical surfaces and ceilings without running off or dripping off. Usually a single application of BPA-CEMsil SC-I is sufficient. The usual application rate is approx. 200 g / m², whereby an application rate of approx. 150 g / m² is sufficient for very dense, high-quality concrete. Depending on the nature and porosity of the building material to be treated, up to 300 g / m² are possible. However, the specified application quantities are only rough guide values and not specific recommendations. As the absorption behaviour of the building materials can be very different, we recommend that the actual quantities to be applied for each individual application be determined experimentally by creating test areas. An overdose of BPA-CEMsil SC-I must be avoided in any case. The active ingredient penetrates completely into the mineral building material within 30 minutes to a few hours and the milky-white cream layer usually disappears without residue and without a colour-intensifying effect on the building material surface, provided the building material has a minimum of absorption capacity. In case of doubt, we urgently recommend creating small test areas before applying the product over a large area. Protection against moisture and penetrating water is already given after the cream has completely penetrated the building material. During the penetration time, however, there should be no external moistening of the building material (e.g. through rain), as the cream can be washed off in this state and thus rendered ineffective.

Wall draining / drill hole injection:

The main area of application of CEMsil SC-I is masonry drainage by means of pressureless borehole injection. CEMsil SC-I is WTA-certified according to WTA-leaflet 4-4-04D and according to this certificate is suitable for use in masonry with a moisture penetration of up to 95%. CEMsil SC-I is injected undiluted into drill holes previously made in the masonry. CEMsil SC-I is injected without pressure.

The cream is usually injected into the masonry above ground level (outdoors) or at floor level (indoors) with horizontally drilled holes approx. 12.5 cm apart. The holes, which are to be drilled with a drilling diameter of approx. 12 mm, should, if possible, be arranged in a row next to one another. The holes should be drilled horizontally into the wall joint and the depth of the hole should correspond to the wall thickness minus a safety distance of approx. 3 cm. In order to achieve an optimal effect of the cream, it is advisable to thoroughly free the boreholes of wall particles and drilling dust with compressed air before the injection. CEMSIL SC-I can be injected with a suitable injection pump as well as with the product filled into cartridges or tubular bags. When injecting, make sure that the drill holes are completely filled with the cream and free of air bubbles. This is best done using an injection cannula, the length of which corresponds at least to the depth of the drill holes. The cream should be injected, starting from the bottom of the hole, by slowly and evenly pulling out the injection cannula while simultaneously injecting the material. Cream residues on the masonry surface due to possible overdosing can be wiped off with an absorbent cloth. In order to prevent the cream from running out of the boreholes or becoming contaminated, it is recommended that the boreholes be externally sealed with quick-release cement after the injection.

The product should be stored in a cool and dark place as possible. In order to avoid contamination with bacteria and fungal spores from the ambient air, only open the container when the product is to be removed and then reseal it immediately. Use the product quickly after opening the container for the first time.

General remark

Ambient / air temperature: +5°C – +50°C The temperatures listed represent the general range in which processing can be carried out without additional measures.

Environment and Health

The product is not a hazardous substance in the sense of the EU Hazardous Substances Ordinance. A safety data sheet for transport, placing on the market and use is available on request.

Dangers and security

The essential safety-related, physical and ecological data for handling BPA-CEMSIL SC-I can be found in the product-specific safety data sheets.

Data

All technical data stated in this product data sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Legal advice

The above information, in particular the suggestions for processing and using our products, are based on our experience and knowledge in the normal case, provided the products have been properly stored and used. Due to the different materials, surfaces and different working conditions, a guarantee of a work result or liability, for whatever legal relationship, cannot be based on this information or verbal advice, unless we are guilty of intent or gross negligence falls. The user has to prove that he has submitted all the knowledge in writing that is necessary for the appropriate and promising assessment by BPA in good time and in full. The user has to check the products for their suitability for the intended application. Changes at the product specifications are reserved.