



Silane Primer

**Water-repellent silane-based primer for efflorescent mineral substrates of façades.
For commercial use only.**

Deep penetrating primer containing solvents based on organic silicon components. Suitable for porous, solid mineral building materials such as brick, natural stone, calcium silicate masonry and aerated concrete. Protects the surface zone from moisture penetration and capillary water transport as well as the associated activation of structurally harmful or discolouring, water-soluble constituents and salts. Not to be used against rising damp, e.g. if there is no horizontal insulation (damp proof course) in the base area. Can naturally not be used on solvent-swellable, synthetic resin bonded substrates, e.g. external thermal insulation composite systems (ETICS).

1. Product Properties

BEECK Silane Primer causes water-repellent, "hydrophobic" lining of the building material pores resulting in deep-action water repellency of the porous mineral building material. By preventing capillary water transport, the activation of structurally damaging salts and bleeding through constituents (chlorides, nitrates, sulphates, discolouring iron salts) in the near-surface zone are also prevented. Silicification of subsequent silicate coatings is therefore also enabled on efflorescent, critical substrates. Durable protection against discolouration and salt transport is only possible by preventing the dynamic capillary pressure, for example, by "draining" and dampproofing foundations or removing other causes of continuous moisture. Water-vapour diffusion, that is to say the exchange of gaseous water vapour between the building material and atmosphere, remains effective without limitation even after treatment with BEECK Silane Primer.

1.1. Composition

- Low-molecular active organosilicon components (alkylalkoxysilanes)
- Dissolved in aromatic compound-free, isoaliphatic hydrocarbons

1.2. Technical properties

1.2.1. Overview

- Use only on façades
- Prevents activation and capillary transport of structurally damaging salts and discolouring ingredients
- Provides long-term protection of building fabric against rainwater, penetration of moisture and contaminant input
- Highly penetrative deep-action preparation
- For alkaline and also for chemically neutral substrates
- Non vapour retarding, valuable in building physics terms
- Does not block pores, is not thermoplastic or film-forming
- Binder free, without consolidating effect
- Stimulates neither dirt nor algae
- Coat over with one-pack silicate systems

1.2.2. Important building physics characteristics

| Parameter | Value | Conformity |
|--|--|-----------------------|
| Density _{20°C} : | 0.79 kg/L | |
| Dynamic viscosity _{20°C} : | < 500 mPas | |
| W ₂₄ value: | 0.05 kg/(m ² h ^{1/2}) | |
| s _d value (H ₂ O): | 0.03 m | |
| W*sd value: | < 0.002 kg/(mh ^{1/2}) | |
| VOC content (max.): | 750 g/L | ChemVOCFarbV Cat. A/h |

1.2.3. Colour

- Colourless transparent

2. Use

2.1. Substrate requirements

- The substrate must be clean, dry, firm and stable and must be free from separating substances.
- Only use BEECK Silane Primer as a deep-action preparation on highly absorbent, porous mineral building materials.
- Can be used in case of low concentrations of water-soluble salts on balanced dry, "healthy" and firm building fabric; the extent and cause of the salt contamination must be determined beforehand.



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- Qualified associated measures to dewater and remove moisture damage must be carried out, e.g. subsequent horizontal insulation, drainage or removal of defective water drainage.
- If necessary, use renovation render in case of moisture damage.
- Brush down dry crumbling surfaces, efflorescence and crusts. Remove sweepings daily.
- Remove algae and biogenic crusts mechanically, prepare and re-treat façade with BEECK Fungicide according to factory specifications.
- Determine which gentle cleaning method is suitable for the substance by carrying out prior test. Clean substrate by means of a dry method wherever possible; drenching the building fabric results in renewed salt transport. Use cleaning agents containing wetting agents sparingly; rewash with clean water.
- After wet cleaning, dry building materials for sufficiently long time until they reach their moisture balance. Only use BEECK Silane Primer on dry substrates.
- Trying out on a test area of representative original substrates on site in the specific property is indispensable to test the effectiveness and to determine the application rate. The target application rate must be documented and checked during use.

2.2. Brief information on the standard system

- Clean substrate and saturate by flow coating with BEECK Silane Primer according to factory specifications.
- Ensure qualified use, substrate suitability and careful preparatory treatment. Try out beforehand on test area under on site conditions.
- Further treatment with one-pack BEECK silicate systems, e.g. BEECK Quartz Filler or Beeckosil, after 6 hours at the earliest. Brush coatings intensively because of a water repellent effect on surface of impregnates building materials.

2.3. Substrate and preparatory treatment

■ **Lime render (PI/CSII), lime-cement render (PII), cement render (PIII):**

Remove any sintering skin with BEECK Etching Fluid according to the factory specifications. Apply renovation render to damp, salt contaminated areas of the façade.

■ **Natural stone, brick, calcium silicate masonry, aerated concrete, fibrated cement:**

Use BEECK Silane Primer on efflorescent substrates, e.g. on ferrous sandstones, weathered brick façades or on fibrated cement. Try out on a test area beforehand. Check building fabric for efflorescence, moisture damage and absorbency. Make good defective joints and bricks, do not use on glazed bricks and clinker. Remove residual release agent pore-deep with formwork release oil remover, rinse with plenty of clean water. Where possible, flow coat all sides of fibrated cement in area of façades, further treat with BEECK Bonding Coat Fine / Coarse. Try out on a test area. Flow coat exterior aerated concrete with BEECK Silane Primer until saturated, use BEECK MBA-Fixative, thinned 1:1 with water in interior areas.

■ **Old mineral coatings:**

Brush off. Blast clean or strip film-forming synthetic resin and emulsion coatings pore-deep.

■ **Unsuitable substrates** are horizontal or sloping surfaces exposed to the weather as well as building materials with high water table pressure, rising or hygroscopic damp. Solvent-swellable substrates such as synthetic resin renders, emulsion coatings and composite materials, e.g. external thermal insulation composite systems (ETICS) are also unsuitable.

■ **Defective substrates** require a differentiated approach; try out on a test area.

2.4. Application instructions

2.4.1. General information

Check substrate suitability as required (see 2.1. and 2.3.). Pay particular attention to the absorbency, strength and texture of the respective substrate. Try out on a test area before using on high quality and critical surfaces. Ensure that the product is used by qualified persons.

- Carefully cover surfaces which are not to be treated – especially glass, ceramics, window sills, expansion joints, lacquer and anodic coatings and protect them from splashes.
- Provide personal protective equipment. Use only in well ventilated outdoor areas, never use indoors, in basements, shafts or manholes.
- Flow coat self-contained areas uniformly and all over, wet-on-wet until they are saturated. Ensure sufficient qualified workers and smooth, uninterrupted coating process.
- Do not use in wet conditions, if there is a risk of frost, on hot surfaces or in the blazing sun.
- Application temperature: +3°C to +25°C
- Protect freshly impregnated façades from rain.
- Drying time: at least 12 hours
- Then further treatment with one-pack BEECK silicate systems, for example, BEECK Quartz Filler or Beeckosil.



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2.4.2. Application

- Apply BEECK Silane Primer unthinned and using flow coat method until saturated.
- Electric pumps and compression sprayers with low pressure and solvent-resistant hose are suitable and efficient; also remove nozzle if applicable. Saturating application can also be achieved by using solvent-resistant brushes on small areas and sectionalised façades.
- Thickly flow coat the material against the wall without atomisation. Watch out for drifting splashes caused by the wind. Enclose the façade if necessary.
- At an interval of approx. 20 minutes, saturate the surface twice wet-on-wet so that no more Silane Primer is absorbed by the building material.
- Determine application rate on sample area beforehand and check during use, e.g. coverage per container.
- Spread dripping, running-off material with a brush. When flow coating, keep a safe distance from the wall, avoid product running onto adjacent areas or into the ground.
- Avoid contact with joint sealants, plastics, lacquer, bituminous sheeting, etc. Cover or mask off areas carefully, rub off Silane Primer immediately with a dry cloth.

3. Application Rate and Container Sizes

The application rate, i.e. the quantity required is approx. 0.3 L – 0.8 L BEECK Silane Primer per m², depending on the porosity of the building material. Determine specific application rate values on site beforehand by trying out on a sample area. Check the target application rate during use.

Container sizes: 5 L / 10 L

4. Cleaning

Thoroughly clean equipment, tools and soiled clothing with solvent (e.g. white spirit), immediately after use.

5. Storage

Stored cool in its original container, BEECK Silane Primer can be kept for at least 18 months. Never transfer into containers that are not solvent resistant.

6. Safety Instructions

- Comply with the EC Safety Data Sheet. Xn - Harmful: may cause lung damage if swallowed. Avoid contact with skin and eyes. Repeated exposure may cause skin dryness or cracking. Do not breathe vapour/spray. Use only in well-ventilated areas. Flammable. No smoking, keep away from sources of ignition. Carefully cover the area surrounding the surfaces to be coated and protect from splashes, runs and sags, and drifting with the wind. This product is for commercial use only. Keep out of the reach of children. Avoid release into the environment. Obtain special instructions / refer to the safety data sheet for advice. Do not empty into drains. Dispose of in accordance with the legal regulations.
- Waste code (EWC code): 080111

7. Declaration

This technical information is offered as advice based on our knowledge and practical experience. All information is provided without guarantee. It does not release the user from their responsibility to check the product suitability and application for the specific substrate on which it is to be used. Subject to change without notice as part of our product development. Additives for tinting, thinning, etc. are not permitted. Check the colours before use. This information sheet automatically becomes invalid when a new edition is issued. The information in the current version of the EU Safety Data Sheets is binding for classification according to the Hazardous Substances Regulations, disposal, etc.