



# BEECK SOL-Fixative

Special fixative for porous mineral and synthetic resinous substrates as well as for glazing techniques

**BEECKASF®**  
Aktiv Silikat Formulierung

## Product properties

Ready-to-use silica-sol potassium silicate mixture without organic fractions as per VOB/C DIN 18363 2.4.1. Highly versatile in use for priming and finishing porous mineral building material on interiors and facades, such as lime and cement plaster, concrete, natural stone, external thermal insulation composite systems (ETICS) and weathered, matte dispersion coatings. Ready-to-use thinner for single-component BEECK sol and silicate systems, including BEECK concrete/stone glazings, eliminating the need for further thinning with water. Silicification, the chemical reaction between substrate, silica-sol and potassium silicate, results in a unit inseparably bonded to the mineral substrate. The high natural alkalinity of the potassium silicates counteract dirt, mold and algae build-up. This enables non-toxic, ecologically compatible coatings, even on substrates which are critical to the building physics. Stipple BEECK MBA fixative according to factory specifications on non-wetting, hydrophobic substrates.

## 1.1. Composition

- Purely mineral potassium silicate and silica-sol
- Organic content 0 % (VOB/C DIN 18363 2.4.1)
- Free of solvent, biocides and preservatives

## 1.2. Technical properties

### 1.2.1. Overview

- BEECK ASF® Active Silicate Formula
- Silicate primer and thinner
- For universal application on interiors and facades
- Silicified and solidified without forming film and stopping up pores
- Capillary-active, sorption-capable and permeable
- Permanent and weather-resistant
- Good wetting and adhesion properties
- Non-flammable
- Thinned and ready to use
- Natural alkalinity counteracts bacteria, algae and mold

### 1.2.2. Important building physics parameters

Parameter	Value	Conformity
Density 20°C:	1.09 kg / L	
pH value 20 °C:	11	
Dynam. Viscosity 20°C:	< 500 mPas	
W <sub>24</sub> value:	> 1.00 kg / (m <sup>2</sup> h <sup>1/2</sup> )	
s <sub>d</sub> value (H <sub>2</sub> O):	0.01 m	
Flammability class:	A2 non-flammable	DIN EN 13501-1, DIN 4102
VOC content (max.):	0 g / L	ChemVOCFarbV, cat. A / h

### 1.2.3. Color

- Clear, transparent.

## 2. Preparation

### 2.1. Requirements for substrate

- The substrate must be clean, dry, solid and absorbent as well as free of efflorescent, water-soluble and separating substances.
- Application on porous, wettable to water-resistant, silicifiable mineral construction materials, even ones with low synthetic resin content.
- Check new plaster to make sure it is dry and solid.
- Thoroughly touch up cavities and flaws so that they are homogenous and even in structure.
- Gently clean pressure-sensitive surfaces.
- Pre and post-treat algae-covered facades with BEECK Fungicide.
- On surfaces with demanding visual requirements, pay attention to uniform substrates and thorough preparation.

### 2.2. Brief info on standard structure

- See 2.4. Preparation instructions on the various applications of BEECK SOL-Fixative.



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## 2.3. Substrate and pretreatment

- **Lime plaster (PI/CSII), lime-cement plaster (PII), cement plaster (PIII); porous, absorptive or slightly water-stopping:** Check plaster to make sure it is dry and solid. Remove sinter skin on solid plaster with BEECK Etching fluid or sand it off; do not use etching fluids on thin-layer plasters and composite systems (such as ETICS). Pre-fix plaster with BEECK SOL-Fixative to solidify surfaces to be sanded and reduce absorbability. Flush brittle plasters that still have adhesion to saturation with BEECK SOL-Fixative, thinned with 1 part water. Let non-hydraulic lime harden sufficiently before coating; conduct stippling on the structure due to the necessary minimum strength; observe manufacturer instructions.
- **Concrete, exposed concrete:**  
Remove remnants of separating agent thoroughly down to the pores using BEECK Formwork Oil Remover and high-pressure cleaner; rinse with plenty of clear water. Wash off thoroughly on the interior too; check wettability of the cleaned substrate by spraying on water. Prime with BEECK SOL-Fixative. For glazing techniques on exposed concrete, used as described under 2.4.
- **Clay:**  
Let clay dry to equilibrium moisture. Sweep sandy oversized particles dry. To solidify, apply undiluted BEECK SOL-Fixative to saturation, brush away excess (glossy spots!). Stipple under the conditions of the property.
- **Brick, lime-sand stone, natural stone:**  
Clean depending on dirtiness and condition, check for leech stains (such as salt rings, ferrous salts), check for moisture damage and absorption capacity. Touch up defective joints and stones. Prime with BEECK SOL-Fixative. Not to be used on glazed bricks or non-porous natural stone, such as granite.
- **Old paint, synthetic resin plaster, external thermal insulation composite systems (ETICS):**  
Thoroughly clean mineral old paint and brush it off. Old paint which is cracked, low-adhesion and forming film should be removed down to the pores, if possible. Check remaining paint for adhesion and adhesiveness. Clean high-adhesion paints and plasters. Treat algae-covered facades with BEECK Fungicide. Prime absorbent, liming and brittle surfaces with BEECK SOL-Fixative. Only use light colors on external thermal insulation composite systems (ETICS) due to the heating effect (lightness value LV > 40).
- **Unsuitable substrates** include horizontal surfaces exposed to weathering (such as wall copings, window sills, structural joints), as well as low-strength, efflorescent and non-alkali-resistant substrates such as wood materials (MDF, OSB), plastics and non-adhesive, plastic-elastic old paints. Stipple BEECK MBA-Fixative on hydrophobic substrates.
- **Flawed substrates** require a different course of action. Reinforce salt-encrusted and moisture-damaged surfaces with restoration plaster.

## 2.4. Preparation instructions

### 2.4.1. General instructions

Check substrate suitability. While doing so, pay attention to the absorptive capacity, water repelling (hydrophobia), solidity and structure of the substrate in question. Important surfaces with demanding requirements should be stippled. Ensure qualified preparation.

- Surfaces which are not to be treated – especially glass, ceramic, ledges, expansion joints, lacquers and metal – should be carefully covered and protected from splashes.
- Specifically for tinted coatings and glazing techniques: Only paint cohesive, self-contained surfaces with containers from the same production batch. Ensure smooth and seamless painting procedure.
- Do not prepare if there is wetness or risk of frost, or on hot surfaces or under direct sunlight.
- Minimum preparation temperature: +8°C
- Drying time: Follow-up coats after priming (pre-fixing) after no fewer than 12 hours. In case of glazing techniques on the exterior: at least 8 hours per glazing coat under dry weathering.
- Protect fresh coatings from rain and direct sunlight. Protect with scaffolding sheeting.

### 2.4.2. Preparation

- **Priming for porous, absorptive mineral substrates:**  
Apply undiluted BEECK SOL-Fixative to saturation using BEECK Mineral paint brushes or via flow coating, carefully remove excess on less absorptive spots after a few minutes. Do not allow any shiny, vitrifying excess residue to remain. Also thoroughly brush in horizontal joints, indentations in the plaster, etc. and remove excess residue. Highly important surfaces and unknown substrates should be stippled.
- **Solidifying brittle and sandy, but basically absorbent mineral construction material:**  
Dilute 1 part BEECK SOL-Fixative with 1 part water. Flow-coat substrate wet-in-wet until saturated. Thoroughly remove excess on less absorptive spots and on saturated substrates (glossy spots!).
- **Thinner for single-component BEECK Sol silicate paints (such as Beecko-SOL):**  
Add BEECK SOL-Fixative undiluted in the necessary quantity of BEECK silicate paint acc. to Technical data Sheet.



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- **Binder for BEECK concrete/stone glazing:**

Add undiluted BEECK SOL-Fixative in the desired quantity to the BEECK concrete/stone glazing; dilution ratio approx. 1:5 to 1:20. Check glazing thickness, work technique and substrate suitability on a sample surface. Protect fresh coatings from rain and protect with scaffolding sheeting.

- **Binder for silicate glazing techniques with BEECK Powdered Pigments:**

Check glazing thickness, work technique and substrate suitability on a sample surface. Depending on the desired glazing thickness, add approx. 200-500g BEECK Powdered Pigments to 1 kg BEECK SOL-Fixative. Stir thoroughly and allow to soak in for at least two hours. Watercolor-like preparation in 2-3 glazing coats with BEECK Mineral paint brush or oval glazing brush. 3 glazing coats are necessary in outdoor areas exposed to weathering. Apply seamlessly in thin layers without overlapping, drying time: at least 8 hours per glazing coat under dry weathering. Protect fresh coatings from rain and protect with scaffolding sheeting.

### 3. Consumption and container sizes

Depending on the substrate, consumption for priming (pre-fixing) ranges from approx. 0.05 to 0.15 kg of BEECK Sol-Fixative per m<sup>2</sup>. For glazing techniques, it can range from approx. 0.05 to 0.10 kg per m<sup>2</sup> and glazing coat. Property-specific consumption values are to be determined based on sample surfaces, specifically on very smooth as well as very rough substrates and for glazing techniques.

Container sizes: 1 kg / 5 kg / 10 kg

### 4. Cleaning

Immediately clean tools and dirty clothes with water after use.

### 5. Storage

At least 12 months when stored in a cool, frost-free environment.

### 6. Hazard warnings, safety advice and disposal

Comply with the EC Safety Data Sheet. Safety data sheet available on request.

**Precautionary statements:** Keep out of reach of children. Do not get in eyes, on skin, or on clothing. Wear eye/face protection. The product is alkaline. Do not breathe vapours, spray-mist and dust. Carefully protect the area surrounding the surface to be coated, wash off splashes immediately with water. Disposal in accordance with the official regulations.

- Waste code for product residue: 080112

### 7. Declaration

This technical information is intended to provide advice based on our findings and experience in practice. All information is non-binding. This does not release handlers from their obligation to verify product suitability and preparation method themselves based on the substrate at hand. Subject to technical changes in the course of product development. Admixtures of third-party products for tinting, thinning, etc. are prohibited. Hues are to be checked before use. This information sheet will automatically cease to be valid when a new version appears. The information in the EU safety datasheets in their current form is binding for classification according to the Hazardous Substances Ordinance, disposal, etc.