



BEECK Fixative

Primer and thinner BEECK Silicate Paints, consolidation and silicification agent for sanding or chalking masonry and mineral surfaces, as well as binder for BEECK Pure Crystalline Finish, the original silicate paint to VOB/C DIN 18363 2.4.1. Free of organic content.

1. Product Properties

Potassium water glass without organic content, effective as a binder and thinning additive as well as for priming and stabilizing or consolidation of porous, mineral substrates. Suitable for lime and cement plaster and render, brick, concrete and natural stone. For decades BEECK silicate coatings have stood for maximum durability with timeless mineral matte aesthetics. Suitable for historic listed buildings and structures as well as for contemporary, healthy and sustainable architecture. BEECK Fixative is a clear product with active potassium water glass binder. A chemical reaction between substrate, pigments and the BEECK Fixative (potassium water glass) called silicification produces uniform inseparable bonding with the mineral substrate. The silicified BEECK Fixative coats are highly breathable and allow the surface to dry quickly after it has rained. The pure mineral content of the BEECK Fixative with no adhesives, i.e. thermoplastic synthetic resin components, help façades remain clean longer. The high natural alkalinity of the potassium water glass helps to protect against soiling caused by mold and algae growth. This product enables a non-toxic, ecologically compatible finish on critical substrates that require specific building physics properties, such as historic listed buildings. The attractive mineral matte appearance and character of the mineral coating with its deep light and the lightfast pure mineral pigmentation enhances any building for decades.

BEECKASF®
Aktiv Silikat Formulierung

1.1. Composition

- Pure mineral potassium water glass
- Organic content 0 % (VOB/C DIN 18363 2.4.1.)
- Water thinnable
- Free from solvents, biocides and preservatives

1.2. Technical properties

1.2.1. Overview

- For use on interior and exterior surfaces
- Delivers maximum silicification activity
- Ideal building physics properties, extremely breathable
- Unsurpassed durability, UV and weathering resistant
- Resistant to alkaline solutions, acids, organic solvents and pollutants
- Obtained from raw materials with unlimited availability
- Integrated in natural material cycles
- Nonflammable
- Water thinnable
- Pure mineral: naturally resistant to microorganisms
- Natural alkalinity helps to prevent bacteria, algae and mold growth

1.2.2. Important building physics characteristics

Parameter	Value	Conformity
Density 20°C:	1.16 kg / L	
pH value 20°C:	11	
Dynamic viscosity 20°C:	< 500 mPas	
W ₂₄ value*:	> 1.00 kg/(m ² h ^{1/2})	
Vapor Permeability (H ₂ O)*:	s _d value < 0.01 m	ISO 7783-2
	77-89 Perms	
Flammability class:	A1 nonflammable	EN 13501-1, DIN 4102
VOC content (max.):	0 g / L	ChemVOCFarV Cat. A / h

* applicable to priming and consolidation with BEECK Fixative

1.2.3. Color

- Colorless transparent (clear)

2. Use

2.1. Substrate requirements

- The substrate must be mineral, non-water repellent, clean, dry, firm and stable, free from efflorescent and separating substances such as oils, greases and other contaminants.
- Test new stucco or plaster for drying and strength.
- Carefully repair chipped surfaces and voids with the same type of material and finishing with the same texture.
- Use stucco, render or plaster to repair cracked substrates. Areas with hairline cracks and minor structural defects can be refinished with a precoat of BEECK Quartz Filler.



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- Clean pressure-sensitive surfaces carefully.
- Prepare algae infested façades with BEECK Mineral Paints D/2 Biological Solution according to the factory specifications.
- Ensure uniform absorbency on substrates which require careful application due to highly visual surfaces and surfaces with glancing light.
- Always do on-site trials of the coating system on a test area of critical and visually high-quality surfaces to ensure application technique, especially if using tinted coatings.
- On semi-water-repellent, water-repellent and synthetic-resin modified surfaces such as EFIS/ETICS or other organic coatings: Use BEECK MBA-Fixative instead of BEECK Fixative for pretreatment before painting.

2.2. Brief information on the standard system

- See 2.4. Application instructions for the corresponding areas of use of BEECK Fixative.

2.3. Substrate and preparatory treatment

- **Lime, lime-cement or cement plaster/stucco/render:**
 - Allow proper drying and curing of newly installed surfaces.
 - Use an etching fluid to remove sinter skin on solid new mortar, plaster/stucco/render. Do not etch thin coat renders and composite materials (for example, ETICS/EIFS).
 - Clean, treat and rinse all algae and fungi infested surfaces with a biological cleaner and a fungicidal treatment.
 - Prime highly absorbent surfaces with BEECK Fixative, thinned with 2 parts water.
 - For sanding surfaces, flow coat several times with the following mixture, 1 part BEECK Fixative and 5 parts water, until completely saturated.
- **Concrete, GFRC, fiber cement boards and other cementitious surfaces:**
 - Allow proper drying and curing of newly installed cement.
 - Use an etching fluid to remove sinter skin on solid new surfaces
 - Clean, treat and rinse all algae and fungi infested surfaces with a biological cleaner and a fungicidal treatment.
 - Prime highly absorbent surfaces with BEECK Fixative, thinned with 2 parts water.
 - For sanding surfaces, flow coat several times with the following mixture, 1 part BEECK Fixative and 5 parts water, until completely saturated.
 - Use a high-pressure cleaner and BEECK Formwork Oil Remover according to the factory specifications to clean concrete pore-deep and to remove any residual release agent, then rinse with plenty of clean water.
 - Prime fiber cement substrates that are being used exterior with BEECK Silane and BEECK Bonding Coat Fine/Coarse before coating.
- **Natural stone, brick, terra cotta, CMU and other masonry:**
 - Allow proper drying and curing of newly installed masonry.
 - Clean thoroughly, check for moisture damage and efflorescence (e.g. salt edges, iron salts) and repair all defective joints and bricks/masonry.
 - Clean, treat and rinse all algae and fungi infested surfaces with a biological cleaner and a fungicidal treatment.
 - Prime highly absorbent surfaces with BEECK Fixative, thinned with 2 parts water.
 - For sanding surfaces, flow coat several times with the following mixture, 1 part BEECK Fixative and 5 parts water, until completely saturated.
 - For CMU apply BEECK Quartz Filler or BEECK Bonding Coat Fine / Coarse over the entire surface as a pretreatment to fill small holes or voids. Perform trials on site to determine the best product for your needs
- **Old film-forming coatings, synthetic resin renders/stucco, external thermal insulation composite systems (ETICS/EIFS):**
 - Remove all cracked or loosely bonded old coatings.
 - Check the adhesion and soundness of all remaining coats.
 - Thoroughly clean tightly bonded coatings and renders/stuccos.
 - Clean, treat and rinse all algae and fungi infested surfaces with a biological cleaner and a fungicidal treatment.
 - Make repairs with proper mortar, matching existing surface texture.
 - Prime highly absorbent or crumbling surfaces with BEECK MBA-Fixative, thinned with 2 parts water.
 - Note regarding façade cleaning: synthetic resin renders/stuccos swell when they absorb water and are slow to dry; allow for sufficiently long drying periods between cleaning and coating. Clean composite systems, insulating renders and similar pressure-sensitive surfaces gently, without damaging the material.
 - Prime with highly adherent BEECK Bonding Coat Fine / Coarse. In case of hairline cracks or minor structural defects, pre-coat the whole façade surface with BEECK Quartz Filler. Try on a test area first.
 - Optionally, strip old coatings with chemical stripper or remove by abrasive blasting.
 - Use only light colors with lightness value (LV) > 40 on external thermal insulation composite systems (ETICS/EIFS).
- **If your substrate was not listed or if you have questions, contact your BEECK representative for recommended application and surface prep.**
- **Unsuitable substrates** are large horizontal or slightly sloping surfaces exposed to the weather, walking surfaces, unstable substrates, efflorescent surfaces containing salts and non-alkali-resistant substrates such as wood-based materials (MDF, OSB), many old oil based coatings, loam, and plastics as well as non-firm and plasto-elastomeric coatings.
- **Defective substrates** require specific approaches. Contact your BEECK representative regarding recommended application and surface prep for your specific condition.
 - Clean, treat and rinse all algae and fungi infested surfaces with a biological cleaner and a fungicidal treatment.



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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. Prepare a trial or test area before using on high visibility and critical surfaces. Ensure that the product is applied by a qualified person.

- Carefully cover surfaces which are not to be treated – especially glass, ceramics, window sills, expansion joints, lacquer and anodic coatings – protect them from splashes, drips or splatters.
- Provide personal protective equipment.
- Only use containers from the same production batch to coat self-contained or continuous surface areas.
- Before use, stir BEECKOSIL thoroughly with a power mixer. Take care not to incorporate air into the product.
- Adjust consistency of BEECKOSIL for substrate absorbency and product flow by adding BEECK Fixative mixture. Max 24 oz. per gallon or 20% in first coat, Max 12 oz. per gallon or 10% in finish coat.
- Do not apply in wet conditions, if there is a risk of frost, on hot surfaces or in the blazing sun.
- Application surface and drying temperature: +40°F – +86°F (+4°C - +30°C)
- Drying time: at least 12 hours per coat
- Protect freshly coated areas from the rain; hang up scaffolding sheeting in front of the surface being worked on.

2.4.2. Application

- **Primer for highly absorbent substrates and for equalizing absorption of mineral substrates:**
 - Thin 1 part BEECK Fixative with 2 parts water.
 - Apply excessively to the substrate repeatedly until completely saturated.
 - Care should be taken to remove or spread out surplus Fixative in less absorbent areas.
- **Stabilization or consolidation of crumbling, sanding but essentially firm, mineral building materials:**
 - Thin 1 part BEECK Fixative with 5 parts water.
 - Apply excessively to the substrate repeatedly until completely saturated.
 - Care should be taken to remove or spread out surplus Fixative in less absorbent areas.

Binder for BEECK Pure Crystalline Finish:

- **Preparation:**
 - Add 25 kg (8 kg, 4 kg) BEECK Powdered Pigment to 30 kg (10 kg, 5 kg) BEECK Fixative, stir thoroughly.
 - Soak for at least 2 hours, ideally overnight. Stir occasionally. Close container airtight during breaks.
- **Application with BEECK Mineral Paint Brush:**
 - Maintain a wet edge, avoid applying to areas that have started to dry. Cut-in edges smoothly and seamlessly, wet-on-wet, together with the main area. On self-contained areas: Apply quickly in one continuous pass, seamlessly, with no overlapping maintaining consistency.
 - Apply 2 Coats:
 - First coat:* Depending on the weather and substrate absorbency, thin with additional BEECK Fixative until application flows smoothly, approx. 3 kg for a batch of 25 kg - 30 kg.
 - Topcoat:* After first coat has dried least 12 hours, apply unthinned. If necessary, it is possible to thin with a small amount of BEECK Fixative for smooth coat ability.

Please refer to the BEECK Pure Crystalline Finish technical data sheet for full details.

- **For glazed application using BEECK Pure Crystalline Finish:**

Check glaze thickness, application technique and substrate suitability of the substrate on test area on the surface to be finished. Use BEECK MBA-Fixative instead of BEECK Fixative on substrates with low absorbency and on BEECK Quartz Filler.
- **Preparation:**
 - Thin 1 kg BEECK Fixative with 1 kg water, add approx. 200 g – 500 g BEECK Powdered Pigment, depending on the required color strength.
 - Stir thoroughly and let rest for at least 2 hours before using, ideally overnight. Stir occasionally. Close container airtight during breaks.
- **Use:**
 - Apply watercolor-like in 2 – 3 glaze coats using the BEECK Mineral Paint Brush or BEECK Oval Brush.
 - Apply thin coats, smoothly and seamlessly, without overlapping.
 - Drying time: at least 8 hours between each glaze coat
- **For added water repellency, BEECK SP Plus is recommended on:**
 - Façades and buildings without a roof overhang as well as on noise barriers with high exposure to dirt and rain. Due to silicification, wait at least 10 days before applying BEECK SP Plus on the silicate glaze or paint.

Thinner for BEECK Silicate Paints, e.g. BEECKOSIL, Beecko-Sol and other BEECK Paints and coatings:

- Thinning quantities depend on the substrate, weather and work method.
- Please refer to the relevant technical data sheet.



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2.5. Auxiliary products

- BEECK MBA-Fixative, special fixative for low absorbent, water-repellent substrates and silicate glazing technique, e.g. on BEECK Quartz Filler, external thermal insulation composite systems (ETICS) and fair-faced concrete.

3. Application Rate and Container Sizes

The application rate, i.e. the quantity required to pretreat smooth, on normally absorbent substrates is approx. 200-300 sf/gal (0.04 kg BEECK Fixative per m²). Best practice is to test on site to determine substrate-related application rate differences.

Container sizes: 1 Qt / 1.1 gal (5 kg) / 6.8 gal (30 kg)

4. Cleaning

Thoroughly clean equipment, tools and soiled clothing with water immediately after use.

5. Storage

Store in a cool and frost-free area, BEECK Fixative can be kept for at least 18 months.

6. Hazard notes, safety instructions 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 vapors, 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 disposal number: 080112

7. Declaration

This technical information is offered as advice based on our knowledge and 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 the product is to be used. All information is subject to change without notice as part of our ongoing product development. Non-system additives for tinting, thinning, etc. are not permitted. Check the colors before use. This information sheet automatically becomes invalid when a new edition is issued. The information in the current version of the Safety Data Sheets is binding for classification according to the Hazards identifications, disposal considerations, etc.