



BEECK Fixative

Primer, thinner and binder for BEECK Silicate Paints, e.g. BEECK Pure Crystalline Finish, pure silicate paint to VOB/C DIN 18363 2.4.1. Free from 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 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 and timeless, mineral matt aesthetics. Suitable for representative listed buildings and structures as well as for contemporary, healthy and sustainable architecture. BEECK Fixative is silicification active potassium water glass as a binder. Silicification, the chemical reaction between substrate, pigments and potassium water glass, produces uniform inseparable bonding with the mineral substrate. Water glass coats are capillary-active and dry quickly after it has rained. As there are no adhesive, thermoplastic synthetic resin components involved, façades remain clean longer. The high natural alkalinity of the potassium water glass counteract dirt, mould and algae growth. This enables non-toxic, ecologically compatible coats on substrates critical with regard to building physics properties, for example, listed buildings. The matt, cheerful character of the mineral coating with its deep light and the pure mineral, lightfast pigmentation enhances any building for decades. Pure silicate coatings are not only unsurpassed with regard to durability and easy renovation, but are also economical.

BEECK ASF®
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 surfaces and façades
- Maximum silicification activity
- Ideal building physics properties, as extremely capillary-active, sorbable and non-vapour retarding
- Unsurpassed durability, UV and weathering resistant
- Mineral pigment incorporation through silicification
- Resistant to alkaline solutions, acids, organic solvents
- Obtained from raw materials with unlimited availability
- Integrated in natural material cycles
- Nonflammable
- Water thinnable
- Pure mineral: no breeding ground for microorganisms
- Natural alkalinity helps to prevent bacteria, algae and mould

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})	
s _d value (H ₂ O)*:	< 0.01 m	
Flammability class:	A1 nonflammable	EN 13501-1, DIN 4102
VOC content (max.):	0 g / L	ChemVOCFarbV Cat. A / h

* applicable to priming with BEECK Fixative

1.2.3. Colour

- Colourless transparent

2. Use

2.1. Substrate requirements

- The substrate must be mineral, water-wettable, clean, dry, firm and stable and free from efflorescent and separating substances.
- Test new render or plaster for drying and strength.
- Carefully make good chipped surfaces and misses with the same type of material and the same texture.



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- Use render or plaster to repair cracked substrates. Areas with hairline cracks and minor structural defects: precoat the whole surface with BEECK Quartz Filler.
- Clean pressure-sensitive surfaces carefully.
- Prepare algae infested façades with BEECK Fungicide according to the factory specifications.
- Ensure uniform substrates and careful application on high visual quality surfaces and in glancing light.
- Always try out the coating system on a test area of critical and visually high-quality surfaces on site, especially if using tinted coatings.
- On low wettability, water-repellent and synthetic-resin modified surfaces such as ETICS or organo-silicate coatings: Use BEECK MBA-Fixative instead of BEECK Fixative; contains wetting-facilitating additives.

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 plaster and render (PI/CSII), lime-cement plaster and render (PII), cement plaster and render (PIII), porous and absorbent, with no or only low water repellency:**
Test render or plaster for drying and strength. Use BEECK Etching Fluid to remove sinter skin on solid plaster or render, or grind off. Do not etch thin coat plasters or renders and composite systems. Prime absorbent plaster or render with BEECK Fixative, thinned with 2 parts water. To prepare plasters and renders whose surface is sanding, but which are still firm: repeatedly flow coat with 1 part BEECK Fixative and 5 parts water until saturated. In case of hairline cracks and structural defects, use BEECK Quartz Filler according to the factory specifications. Allow air-lime plasters and renders to carbonate sufficiently before coating and always try out on a test area on site due to the required minimum strength.
- **Concrete, fair-faced concrete:**
Use 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, and then rinse with plenty of clean water. Clean thoroughly in interior areas too; try out first by wetting a test area with sprayed on water! Preset with BEECK Fixative, thinned with 2 parts water. Alternatively, for glazing technique on fair-faced concrete: BEECK MBA-Fixative.
- **Brick, calcium silicate masonry, natural stone:**
Clean substrate properly. Check for efflorescence (e.g. salt edges, iron salts), moisture damage and absorbency. Make good defective joints and bricks. Preset with BEECK Fixative, thinned with 2 parts water. Do not use on glaze, clinker, ceramic and non-porous natural stone, e.g. granite.
- **Existing silicate and lime-based coatings:**
Check firmness, clean surface thoroughly with high-pressure cleaner and / or brush down. Preset with BEECK Fixative, thinned with 2 parts water. Strip or blast clean surface to remove film-forming existing coatings.
- **Unsuitable substrates** are horizontal or sloping surfaces exposed to the weather, less stable, pore-free, efflorescent surfaces and non-alkali-resistant substrates such as wood-based materials (MDF, OSB), clay or loam, gypsum, and plastics as well as non- firm and plasto-elastic coatings.
- **Defective substrates** require a differentiated approach. Apply renovation plaster or render on damp, salt contaminated surfaces and base areas, then apply a priming coat of BEECK Quartz Filler to the whole surface.

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 only.

- 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.
- Especially if using tinted coatings: Always use containers of product from the same production batch to paint self-contained areas.
- Ensure sufficient qualified workers and a 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.
- Minimum application temperature: +8°C
- Drying time: at least 12 hours per coat
- Protect fresh coats from rain and the blazing sun. Hang up scaffolding sheeting in front of the surface worked on.

2.4.2. Application

- **Primer for absorbent, water-wettable, mineral substrates:**
 - Thin 1 part BEECK Fixative with 2 parts water.
 - Apply thickly with BEECK Mineral Paint Brush until saturated.



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- Carefully spread out surplus coating in less absorbent areas.
- **Stabilisation of crumbling, but nonetheless essentially firm, mineral building materials:**
 - Thin 1 part BEECK Fixative with 5 parts water.
 - Flow coat substrate wet-on-wet several times until saturated.
 - Carefully spread out surplus in less absorbent areas and on saturated substrates.
- **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 over night. Stir occasionally. Close container airtight during breaks.
 - **Application with BEECK Mineral Paint Brush:**
 - 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 and uniformly.
 - Coats:
 - 1 Primer coat:* Depending on the weather and substrate, thin with additional BEECK Fixative until coatable, approx. 3 kg for a batch of 25 kg / 30 kg.
 - Topcoat:* After at least 12 hours, if necessary, thin with a small amount of BEECK Fixative for optimally smooth coatability.
- **Please refer to the BEECK Pure Crystalline Finish technical data sheet.**
- **For glazed application with BEECK Pure Crystalline Finish:**

Check glaze thickness, technique and substrate suitability on test area on site. Use BEECK MBA-Fixative instead of BEECK Fixative on substrates with low wettability 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 colour strength.
 - Stir thoroughly and soak for at least 2 hours, ideally over night. Stir occasionally. Close container airtight during breaks.
- **Use:**
 - Apply watercolour-like in 2 – 3 glaze coats using the BEECK Mineral Paint Brush or BEECK Oval Brush.
 - Apply thin coats, smoothly and seamlessly and without overlapping.
 - Drying time: at least 8 hours per glaze coat
- **Long-term preservation with BEECK SP Plus recommended for:**
 - Representative 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.
- **Thinner for one-pack BEECK Silicate Paints, e.g. Beekosil or BEECK Quartz Paint:**
 - Admixture quantities depend on the substrate, weather and work method.
 - Please refer to the relevant technical data sheet.

2.5. Auxiliary products

- BEECK MBA-Fixative, special fixative for low wettability, 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 preset smooth, normally absorbent substrates is approx. 0.04 kg BEECK Fixative per m². Try out on a test area on site to determine substrate-related application rate differences.

Container sizes: 1 kg / 5 kg / 10 kg / 30 kg

4. Cleaning

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

5. Storage

Stored cool and frost-free, BEECK Fixative can be kept for at least 18 months. Soaked with BEECK Powdered Pigment, close container airtight and use within 4 weeks.



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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 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 disposal number: 080112

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. Non-system 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 EC Safety Data Sheets is binding for classification according to the Hazards identifications, disposal considerations, etc.