

BEECK Silicate Filler

Levelling filler for full surface filling on mineral façades

1. Product Properties

Ready to use filling compound for high-quality façade renovation especially for cement and lime cement plaster or render, fair-faced masonry and concrete with hairline cracks and minor structural defects. Application per pass max. 2 mm, maximum coat thickness for two applications 3 - 4 mm. Prefill deeper chipped surfaces, misses and rough plaster with suitable lime/cement based plaster or render. On hairline cracks and critical substrates, embed reinforcing mesh over the whole area (Kobau Glasgitter-Gewebe 5/5 A). Overcoat the silicate filler, preferably with BEECK Quartz Filler or „coarse“ silicate coatings. Never use BEECK Silicate Filler as a repair or stain covering filler within enclosed, intact plaster or render areas; such making good work must be carried out using a plaster or render mortar of the same type, e.g. lime or cement-based products.

1.1. Composition

- Potassium water glass binder
- Mineral extenders, grading curve with texture grain approx. 0.3 mm
- Organic content < 5 % (VOB/C DIN 18363 2.4.1.)
- Free from solvents, plasticisers and biocides

1.2. Technical properties

1.2.1. Overview

- For use on interior and exterior surfaces
- Durable and robust
- Low shrinkage
- Bridges hairline cracks if used with glass mesh reinforcement
- Economical and efficient
- Nonflammable
- Highly water vapour and CO₂ permeable
- Not thermoplastic
- Natural alkalinity helps to prevent bacteria and mould

1.2.2. Important building physics characteristics

Parameter	Value	Conformity
Density 20°C:	Approx. 1,8 kg / L	
pH value 20°C:	11	
Dynamic viscosity 20°C:	> 12.000 mPas	
W ₂₄ value:	> 0,5 kg / (m ² h ^{1/2})	DIN EN 1062-3
s _d value (H ₂ O):	0,08 m	DIN EN 1062-1
Organic content:	< 5 %	VOB/C DIN 18363 2.4.1.
Flammability class:	A2 non-flammable	DIN EN 13501-1, DIN 4102
VOC content:	< 2 g / kg	ChemVOCFarbV

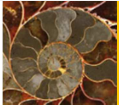
1.2.3. Colour

- Natural White.

2. Use

2.1. Substrate requirements

- The substrate must be clean, dry, firm and stable and must be free from efflorescent and separating substances.
- Porous, absorbent to weakly water repellent mineral substrates are suitable, including with slight organic modification.
- Use only on firm, stable, shrinkage-free mineral substrates (EN 998-1, CS II - III plasters/renders) with good water resistance and full weather resistance on exterior areas.
- Use preferably on solid render and masonry walls made by traditional construction methods. Try out first on a test area of critical substrates.
- If used on new plaster/render, ensure adequate drying, curing and life (2 – 4 weeks depending on weather and render).
- Prefill deeper chipped surfaces, misses and static cracks carefully and properly using suitable lime/cement plasters or renders with the same type and structure. Also apply mineral prefill on rough cast plasters/renders and fair-faced masonry with deep-set joints. Push off oversize grain, filler burrs, etc. mechanically so that the most level possible filler-primer surface results.



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- On mixed substrates and surfaces with hairline cracks, repairs or structural defects, embed glass mesh reinforcement over the whole area. After allowing to through-dry for at least 1 day, a second layer of filler over the whole area is recommended.
- If necessary, precoat whole surface of critical, smooth or low-porosity substrates with BEECK Bonding Coat Coarse, try out on a test area beforehand.
- Ensure uniform substrates and careful application and texturing on high visual quality surfaces and in glancing light.
- Before applying the filler, check construction and connecting joints and if necessary renew. Do not cover expansion joints.

2.2. Brief information on the standard system

- One to two layered, full surface application of BEECK Silicate Filler.
- If necessary, embed glass mesh reinforcement in the first layer of filler.
- Overcoat the whole area of silicate filler preferably with BEECK Quartz Filler or „coarse“ silicate coatings.

2.3. Substrate and preparatory treatment

• **Lime-cement render/plaster, cement render/plaster:**

Clean thoroughly with high pressure. Check render/plaster for drying, strength and stability over the whole area (voids, cracks, crumbly, moist areas). Remove damaged areas down to a firm core and fill with suitable (lime/cement) mortar. Use BEECK Etching Fluid according to the factory specifications to remove sinter skin on solid plaster or render. Do not etch thin coat plasters or renders and composite systems. Prime absorbent render/plaster with BEECK Fixative, thinned with 2 parts water.

• **Calcium silicate masonry, brick, calcium silicate panels:**

Clean façade thoroughly with high-pressure, check for absorbency, moisture damage and efflorescence (e. g. salt edges). Remove damaged blocks and joint mortar down to firm core and fill properly. Use suitable (cement) mortar to smoothen the whole surface of masonry with deep-lying joints. Roughen hard fired, absorbent clinker mechanically, finish first layer of silicate filler firmly as a thin layer for optimum adhesion. Prime calcium silicate panels with BEECK Fixative, thinned with 2 parts water. Use glass mesh reinforcement over whole area of all inhomogeneous substrates susceptible to cracks.

• **Concrete, shuttered concrete, cast stones:**

High-pressure clean of concrete using BEECK Formwork Oil Remover according to the factory specifications. Rinse with clean water. Test the wettability of the cleaned substrate by spraying on water, remove formwork release agent residues carefully in interior areas too. Push off formwork burrs, pre-fill misses and chipped surfaces with suitable mortar (PCC). To cover voids it is useful to embed glass mesh reinforcement, try out first on site.

• **Old coatings:**

Brush off firmly adhering mineral coatings and stabilise with BEECK Fixative, thinned with 2 parts water. Use blasting or stripping method to remove old coatings and synthetic resin-based renders/plasters as pore-deep as possible.

• **Unsuitable substrates** are less stable, crumbly, efflorescent, organic, film-forming and non-alkali-resistant substrates, e.g. (air) lime render/plaster (CS I), synthetic resin render/plaster, ETICS, gypsum, clay and loam, wood-based material, plastics, emulsion coatings.

• **Defective substrates** require a differentiated approach. Damp proof damp, salt contaminated areas, basement walls and base areas and apply renovation render/plaster.

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. Examine high quality and critical surfaces and try out on a test area first. 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.
- Provide personal protective equipment.
- Treat self-contained areas uniformly and over the whole area.
- Before use, stir BEECK Silicate Filler thoroughly with a powered mixing paddle. Use unthinned.
- Do not use on heated surfaces, in the blazing sun, in wet conditions or if there is a risk of frost. Hang up scaffolding sheeting in front of the surface worked on.
- Minimum application temperature: +8°C air and substrate.
- Drying time: at least 16 hours per layer of render/plaster in dry weather conditions. Only coat over completely hardened layers.



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2.4.2. Use

Apply using a trowel and plaster's float. Apply to self-contained areas with a thin coating, no overlapping and uniformly in one continuous pass by cross coating and texture.

- **Application:**

- Using render / plaster pump or plaster's float as a thin coat, maximum 2 mm thick.
- If embedding mesh, apply filler over whole surface first and then embed reinforcing mesh (Kobau Glasgitter-Gewebe 5/5 A) without creases, overlap 5 -10 cm wide. Smooth out protruding filler and allow to through-harden for at least 16 hours before applying second coat.
- Avoid joins, overlapping and overcoating coats that have already begun to dry, especially in scaffold working areas.
- Provide sufficient workers for smooth workflow.
- Use a plasterer's float to smoothen uniformly, do not work the surface with felt/nonwoven. Weak float burrs can be left visible if applied manually. After drying, grind smooth visually spurious filler burrs. To avoid visible ground areas, grind the whole area treated with filler, so that there are no visible joins even in glancing light. Try out first on high visual quality surfaces. A levelling following coat of BEECK Quartz Filler or „coarse“ silicate paint is advisable.
- Reveals, etc. can be worked separately.
- 1 to 2 filler layers in total as required. Allow for minimum drying time of 16 hours per layer.

2.5. Auxiliary products

- BEECK Fixative: Primer. Use BEECK MBA-Fixative on water-repellent surfaces.
- Use BEECK Bonding Coat Coarse on critical, smooth or non-porous, however alkali-resistant substrates. Try out on a test area beforehand.
- Reinforcement mesh (Kobau Glasgitter-Gewebe 5/5 A) for embedding on substrates with hairline cracks, etc.

3. Application Rate and Container Sizes

The application rate on smooth substrates is approx. 1.8 kg/m² per mm coat thickness. Try out on a test area to determine specific application rates for the project in hand as well as the number of coats required.

Container size: 25 kg

4. Cleaning

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

5. Storage

Stored cool and frost-free can be kept for at least 12 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 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.