



BEECK Silicate Filler

Levelling filler for full surface filling on mineral façades

1. Product Properties

Ready-to-use levelling compound for high-quality façade renovations, especially for lime, cement and lime-cement plaster and concrete with hairline cracks and minor structural defects. Apply in one or two coats, maximum application thickness 3 mm per coat. Pre-fill defects with a suitable lime/cement-based mortar. On hairline cracked and critical substrates, embed reinforcing mesh over the entire surface (Kobau glass fibre mesh 5/5 A). Preferably rework the silicate filler with BEECK Quartz Filler or silicate coats in "coarse". Do not use BEECK Silicate Filler as a repair or stain filler within closed, intact plaster surfaces; such repairs must be carried out using the same type of mortar, e.g. lime/cement mortar.

1.1. Composition

- Binder Potassium silicate
- Mineral, silicifiable fillers, organic additives
- Free from solvents, plasticisers and biocidal additives

1.2. Technical properties

1.2.1. Overview

- Application for rational surface levelling in exterior areas
- Low shrinkage, durable and robust
- Silicifying, not film-forming or thermoplastic
- Bridges hairline cracks with glass mesh reinforcement
- Non-combustible
- Highly permeable to water vapour and CO₂
- Natural alkalinity is effective against bacteria and mould

1.2.2. Important building physics characteristics

Parameter	Value	Conformity
Density 20°C:	1.6 – 1.7 kg / L	
pH value 20°C:	11	
Dynamic viscosity 20°C:	> 12,000 mPas	
Diffusion-equivalent air layer thickness s _d :	< 0.1 m	DIN EN 7783-2
Water vapour permeability / water absorption:	V1 / W2	DIN EN 1062-3
Adhesive strength:	≥ 0.3 mPa	
Flammability class:	A2-s1 d0, non-combustible	DIN EN 13501-1, DIN 4102
Thermal conductivity:	NPD / KLF	

1.2.3. Colour

- Natural White.

2. Application

2.1. Substrate requirements

- The substrate must be clean, dry, sound and load-bearing and free from efflorescent and separating substances. Application on shrinkage-free, mineral substrates with good water resistance and full weather resistance in outdoor areas. The surface must be wettable and absorbent. Plasters: CSI, CSII, CSIII, CSIV, (EN 998 -1), concrete.
- Preferably used on solid plaster and masonry shells of traditional construction. Sample critical substrates.
- For new substrates, ensure sufficient drying, curing and durability (2 - 4 weeks depending on weather conditions and plaster. On fresh masonry and concrete substrates as required).
- Carefully and professionally pre-fill break-outs, defects and static cracks with a suitable lime/cement mortar of the same type and structure. Also pre-fill roughcast and masonry joints with mineral mortar (scratch coat). Mechanically smooth off burrs etc. so that the filler base is as even as possible.
- On mixed substrates and surfaces with hairline cracks, repair areas or structural defects, embed glass mesh reinforcement over the entire surface. A second layer of filler is recommended for at least 48 hours.
- Check construction and connection joints beforehand and replace if necessary. Do not fill expansion joints.

2.2. Brief information on the standard system

- Full-surface priming with BEECK SOL-Fixative.
- Apply one or two layers of BEECK Silicate Filler, embedding glass mesh reinforcement in the first layer if necessary.
- Full-surface reworking of the silicate filler preferably with BEECK Quartz Filler or silicate coats in "coarse".



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2.3. Substrate and preparatory treatment

- **Lime-cement render/plaster, cement render/plaster (CSI - CSIV (EN 998 -1) or Plc - PIII (DIN 18550):**
Thoroughly clean existing plasters with high pressure. Check plaster for drying, strength, absorbency and full-surface load-bearing capacity (cavities, sanding, cracks, friable, moisture-stressed areas). Remove damaged areas down to the load-bearing core and fill with suitable (lime/cement) mortar. Remove sintered skin on solid plaster with BEECK Etching Fluid according. Do not etch thin-layer plasters and composite systems. Saturate the entire substrate with BEECK SOL-Fixative at least 12 hours before levelling, alternatively with BEECK Fixative, diluted with 2 parts water.
- **Concrete, formwork concrete, precast concrete parts:**
High-pressure cleaning (grit, release agent!) using BEECK Formwork Oil Remover according to manufacturer's instructions. Rinse with clear water. Remove mould flashings, pre-fill defects and break-outs with suitable mortar (PCC). Saturate the substrate with BEECK SOL-Fixative at least 12 hours before levelling, alternatively with BEECK Fixative, diluted with 2 parts water.
- **Unsuitable substrates** are low-strength, friable, efflorescent, organically bound, film-forming, hydrophobic and/or non-alkali resistant substrates, e.g. air lime, light and synthetic resin plasters, gypsum, clay, wood-based materials, metals, paint, silicone resin and dispersion coatings.
- **Defective substrates** require a differentiated approach. Surfaces and plinth areas exposed to salt and moisture must be professionally dried and finished with a renovation plaster.

2.4. Application instructions

2.4.1. General information

Check the suitability of the substrate (see 2.1. and 2.3.). Take into account the absorbency, strength and structure of the respective substrate. Sample demanding and critical surfaces. Treat closed surfaces evenly and over the entire surface, ensure qualified application.

- Carefully cover surfaces not to be treated - especially glass, ceramics, baseboards, expansion joints, paintwork and anodised surfaces - and protect them from splashes.
- Stir BEECK Silicate Filler thoroughly with a slow-running electric stirrer before use. Apply undiluted, if necessary adjust to trowel width by adding approx. 1 % BEECK SOL-Fixative.
- Do not use on heated surfaces, in direct sunlight, in fog, wet conditions, rain or frost. Protect freshly levelled façades from rain for 2 to 3 days.
- Minimum processing temperature: + 8°C air and substrate.
- Drying time: at least 48 hours per coat of render in mild, dry weather. Final strength due to silicification after 2 - 3 weeks. Only recoat fully set, visually homogeneously dried layers.

2.4.2 Application

Plaster with a trowel and trowel. Apply and structure self-contained surfaces evenly in one work step.

- Apply with a plaster pump or trowel in a thin layer with a maximum thickness of 3 mm per layer.
- When embedding mesh, apply filler over the entire surface and embed reinforcing mesh (Kobau glass fibre mesh 5/5 A) without creases or distortion, overlapping at the edges by 5 - 10 cm. Smooth out any excess filler and allow the layer to cure for at least 48 hours before applying the second coat.
- Avoid build-up, overlapping and drying, especially on scaffolding layers. Provide sufficient staff to ensure a smooth working process. Work on self-contained surfaces in one operation.
- Smooth the surface evenly with a trowel, do not felt. Weak trowel ridges may remain visible when working by hand. Sand visually disturbing trowel ridges smooth after drying. To avoid visible sanding marks, sand the entire surface of the trowelled area if necessary. Sample on visually demanding surfaces. A subsequent levelling coat of BEECK Quartz Filler or silicate paint in "coarse" is recommended to even out the structure. Reveals etc. can be treated separately.
- Apply 1 to 2 filler coats in total as required. Minimum drying time of 48 hours per layer.

2.5. Auxiliary products

- BEECK SOL-Fixative: Silicifying, ready-to-use diluted primer and consolidating agent. Strengthens the mineral substrate and binds dust. Alternatively, BEECK Fixative, diluted with 2 parts water.
- Reinforcing mesh (Kobau glass fibre mesh 5/5 A) for embedding on substrates with cracks in plaster surface.

3. Consumption and Container Sizes

Consumption on smooth substrates is approx. 1.6 - 1.7 kg/m² per mm layer thickness. Determine object-specific consumption values, application method and number of layers required by means of a sample surface.

Container size: 20 kg

4. Cleaning

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



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5. Storage

Shelf life at least 12 months if stored cool and frost-free.

6. Hazard notes, safety instructions and disposal

Comply with the EC Safety Data Sheet. Safety data sheet available on request. Do not get in eyes, on skin, or on clothing. May produce an allergic reaction. The product is alkaline. Carefully protect the area surrounding the surface to be coated, wash off splashes immediately with water. Disposal in accordance with legal regulations.

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.