



# Insil

## Solvent-free, open-pored interior silicate paint to VOB/C DIN 18363 2.4.1. Suitable for living areas and commercial premises

Ready-to-use, universal interior silicate paint for use in residential and commercial premises, for administration buildings and public facilities. For use on all firm surfaces such as lime and cement plaster, woodchip wallpaper and glass fabric. Following a base coat of BEECK Maxil Primer Fine/Coarse, also suitable for gypsum plaster and gypsum boards.

### 1. Product Properties

BEECK Insil is a solvent-free one-pack silicate system and contains silicifiable potassium water glass as a binder. Silicification, the chemical reaction between substrate and potassium water glass, produces uniform inseparable bonding with the mineral substrate. The mineral pigmentation is also optimally incorporated.

#### 1.1. Composition

- Pure mineral potassium water glass
- Mineral pigments: lightfast and of natural origin
- Organic content < 5% (VOB/C DIN 18363 2.4.1.)
- Solvent free

#### 1.2. Technical properties

##### 1.2.1. Overview

- For universal use on interior surfaces
- Opaque
- Water thinnable
- Water vapour permeable and non-vapour retarding
- Nonflammable
- Free from solvents, biocides and preservatives
- Natural alkalinity helps to prevent bacteria and mould
- Resistant to proprietary cleaning products and disinfectants

##### 1.2.2. Important building physics characteristics\*

Parameter	Value	Conformity
Density <sub>20°C</sub> :	1.43 kg/L	
pH value <sub>20°C</sub> :	11	
Dynamic viscosity <sub>20°C</sub> :	5,000 mPas	
W <sub>24</sub> value:	0.20 kg/(m <sup>2</sup> h <sup>1/2</sup> )	
s <sub>d</sub> value (H <sub>2</sub> O):	< 0.02 m	
Colourfastness**:	Class A1	BFS Information Sheet No. 26
Contrast ratio / hiding power:	Class 2	EN 13300
Wet-scrub resistance:	Class 3	EN 13300
Grain size:	fine	EN 13300
Gloss level at 85°:	dull matt	EN ISO 2813
Flammability class:	A2 nonflammable	EN 13501-1, DIN 4102
VOC content (max.):	4 g/L	ChemVOCFarbV Cat. A/a

\* applicable to White

\*\* applicable to tinted

##### 1.2.3. Colour

- White and Off-White.
- Individually tintable in pastel colours with BEECK Full Colour Silicate Paint

### 2. Use

#### 2.1. Substrate requirements

- The substrate must be clean, dry, firm and stable and must be free from efflorescent and separating substances.
- Test new plaster or render for drying and strength.



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- Carefully make good chips and misses with the same type of material and the same texture.
- Use plaster to repair cracked substrates. Plastered areas with hairline cracks and minor structural defects: precoat the whole surface with BEECK Maxil Primer Coarse or BEECK Quartz Filler. Try out on a test area on site.
- Ensure uniform substrates and careful application on high visual quality surfaces and in glancing light.

### 2.2. Brief information on the standard system

- Apply two coats of BEECK Insil
- Add water to optimally adjust BEECK Insil to the substrate and use.
- On critical surfaces, old emulsion coatings and gypsum board and for tinted coatings: Primer coat with BEECK Maxil Primer Fine or Coarse (grain size 0.4 mm). One or two topcoats with BEECK Insil, white or tinted, as required.
- Try out coating system on a test area under on site conditions if using on visually high-quality surfaces and tinted coatings.

### 2.3. Substrate and preparatory treatment

- **Lime render/plaster (PI/CSII), lime-cement render/plaster (PII), cement render/plaster (PIII):**  
 Test render or plaster for drying and strength. Use BEECK Etching Fluid to remove sinter skin on solid plaster, or grind off. Do not etch thin coat renders or plasters and composite systems (for example, ETICS). Prime absorbent plaster with BEECK Fixative, thinned with 2 parts water. To prepare plasters and renders whose surface is sanding, but which are nonetheless firm: repeatedly flow coat with 1 part BEECK Fixative and 5 parts water until they are saturated.
- **Gypsum plaster, gypsum-lime plaster, gauging plaster:**  
 Apply primer coat with BEECK Maxil Primer Fine/Coarse. If necessary, grind off sinter layer.
- **Gypsum boards:**  
 Ensure proper installation and required surface quality and evenness tolerances under the given on site and glancing light conditions (VOB/C and quality level 3 or 4, according to good practice guide No. 2 issued by the German gypsum industry association (Bundesverband der Gipsindustrie e.V.)). Apply primer coat to whole surface with BEECK Maxil Primer Fine / Coarse.
- **Calcium silicate masonry, brick:**  
 Clean thoroughly, check for absorbency, moisture damage and efflorescence (e.g. salt edges). Make good crumbling bricks and joints. Apply primer coat of BEECK Quartz Filler, BEECK Maxil Primer Fine / Coarse or directly with BEECK Insil.
- **Concrete:**  
 Thoroughly clean with water and formwork release oil remover and rinse off with clean water. Test the wettability of the cleaned substrate by spraying on water. Apply primer coat optionally with BEECK Maxil Primer Fine / Coarse or BEECK Insil.
- **Woodchip wallpapers, glass fabric, nonwoven wall covering:**  
 Check for full bonding of whole surface, especially in the area of joints. Only use on alkali-resistant fabric and paper.
- **Old coatings:**  
 Brush down mineral coatings and if chalking, stabilise with BEECK Fixative, thinned with 2 parts water. Completely rinse off distempers and tempera paints. Old plasto-elastic, synthetic resin-based coatings: strip or blast clean, pore-deep. Clean firmly adhering, old, matt, emulsion-based coatings and precoat with BEECK Maxil Primer Fine / Coarse.
- **Unsuitable substrates** are efflorescent, organic and non alkali-resistant substrates, e.g. wood-based materials (MDF, OSB), clay or loam and plastics.
- **Defective substrates** require a differentiated approach. Apply renovation render to areas exposed to salt and moisture, basement walls and base areas.

### 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.
- Provide personal protective equipment.
- Only use containers from the same production batch to coat self-contained areas.
- Before use, thoroughly stir BEECK Insil with a powered mixing paddle.
- Add water to make optimally coatable.
- Do not use on hot surfaces.
- Minimum application temperature: +8°C
- Drying time: at least 12 hours per coat



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### 2.4.2. Application

Apply using roller, brush or an airless spraying method. Apply on self-contained areas with an absolutely thin coating, no overlapping and uniformly in one continuous pass with a cross coat.

**■ Application with roller or brush:**

- Rollers and brushes with a uniform coating finish are suitable.
- Avoid roller edges, overlapping and overcoating coats that have already begun to dry.
- Cut-in edges smoothly and seamlessly, wet-on-wet, together with the main area.
- As a brushed surface, use a BEECK Mineral Paint Brush to spread without brushing in any particular direction.
- Coats
  1. *Primer coat:* mix with approx. 5% – 10% water to improve coatability.
  2. *Topcoat:* After at least 12 hours, unthinned or made coatable with no more than 5% water.

**■ Spraying method (airless):**

- Nozzle: 0.79 mm/0.031 inch
- Always sieve the product before use.
- Apply uniformly and as a thin coat, and then, if necessary, use a brush or roller to uniformly lay-off.

### 2.5. Auxiliary products

- BEECK Maxil Primer Fine or Coarse (grain size 0.4 mm), as an opaque white, efficient substrate on gypsum, gypsum board and old coatings.
- BEECK Quartz Filler P, fibre reinforced slurry additive (powder) for coarse-grained primer and intermediate coats. Mix a 12.5 L bucket of BEECK Insil with 4 kg BEECK Quartz Filler P and thin with approx. 2 kg BEECK Fixative. Apply uniformly with roller or brush, smoothly, seamlessly and without grain pockets. Topcoat with BEECK Insil Fine, without slurry additive.
- BEECK Quartz Filler, slurry silicate priming coat for covering hairline cracks and minor structural defects. Apply with the brush. Do not apply directly on gypsum or gypsum board.

### 3. Application Rate and Container Sizes

The application rate, i.e. the quantity required for smooth, normally absorbent substrates is approx. 0.13 L BEECK Insil per m<sup>2</sup> and pass. Try out on a test area on site to determine substrate-related application rate differences.

Container sizes: 5 L / 12.5 L

### 4. Cleaning

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

### 5. Storage

Stored cool and frost-free, BEECK Insil can be kept for at least 12 months.

### 6. Safety Instructions

- Comply with the EC Safety Data Sheet. The product is alkaline. Avoid contact with skin and eyes. Wear safety glasses or goggles/face protection. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Carefully cover the area surrounding the surfaces to be coated, wash off splashes immediately with water. Keep out of the reach of children. Do not breathe vapour, spray and dust. Dispose of in accordance with the legal regulations.
- Waste code (EWC code): 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. 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 EU Safety Data Sheets is binding for classification according to the Hazardous Substances Regulations, disposal, etc.

**Factory:**