



# BEECK Sensil / BEECK Sensil Plus

Excellent covering interior silicate paint to VOB/C DIN 18363 2.4.1 for heavy-duty interior rooms.  
BEECK Sensil Plus additional with photocatalytic effect



## 1. Product Properties

Hard-wearing interior mineral paint used for frequented interior rooms and corridors in private, public and commercial buildings, e.g. schools, hospitals, hotels, offices, kitchens, car parks, workshops and store houses, inclusively food industry and gastronomy. Universal for lime and cement plaster, concrete, fabric and non-woven. Following a base coat of BEECK Gypsum Primer, also suitable for gypsum plaster, gypsum boards and old dull wall coatings. Attractive matt appearance. Highly diffusible with ideal building physics properties, beneficial for a convenient room climate and ambient air quality. Intensive silicification, the chemical reaction between substrate and potassium water glass, produces uniform inseparable bonding with the mineral substrate, and optimum abrasion and wet-scrub resistance.

### 1.1. Composition

- Pure mineral potassium water glass, silica sol
- Mineral pigments: lightfast and of natural origin
- Optional with photo catalyst (BEECK Sensil Plus)
- Organic content < 5% (VOB/C DIN 18363 2.4.1.)
- Free from solvents, low VOC

### 1.2. Technical properties

#### 1.2.1. Overview

- Use on interior surfaces
- BEECK ASF® Active Silicate Formulation
- Highest wet-scrub resistance and hiding power class 1
- Attractive matt, mineral surface
- Low tension
- Permanently brilliant coloration
- Nonflammable
- Water vapor and CO<sub>2</sub>-permeable
- Plasticizer-free and thermoplastic-free, free from electrostatic build-up
- Natural alkalinity helps to prevent bacteria and mold
- Photocatalytic effective against air pollution, smell and odorants (BEECK Sensil Plus)
- Resistant to cleaning products and disinfectants
- Ecological alternative to common latex paint

#### 1.2.2. Important building physics characteristics

Parameter	Value	Conformity
Density 20°C:	1.45 kg / L	
pH value 20°C:	11	
Dynamic viscosity 20°C:	5,000 mPas	
W <sub>24</sub> value:	< 1.00 kg/(m <sup>2</sup> h <sup>1/2</sup> )	EN 1062-3
Vapor Permeability (H <sub>2</sub> O):	0.01 m <sub>s</sub> d value, 75-85 Perms	EN ISO 7783-2, ASTM E96
Hiding power/Contrast ratio:	Class 1	EN 13300
Wet-scrub resistance:	Class 1	EN 13300
Gloss level at 85°:	dull matt	EN ISO 2813
Flammability class:	A2 nonflammable	EN 13501-1, DIN 4102
VOC content (max.):	2 g / L	ChemVOCFarbV Cat. A / a

\* applicable to White

#### 1.2.3. Color

- White and Off-White and ready-mixed in pastel colors of the BEECK Mineral Paint Color Chart (color groups I, II) for Sensil Plus. Fully tintable in BEECK Sensil

## 2. Use

### 2.1. Substrate requirements

- The substrate must be clean, dry, firm and stable and must be free from efflorescent and separating substances.



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- Suitable for porous, absorbent, matt, water repellent as well as organic modified substrates of mineral character. A sufficient water resistance and hardness of substrate is a precondition for a hard-wearing coating.
- Check drying and strength of new plaster.
- Use plaster to repair cracked substrates. Areas with hairline cracks and minor structural defects: cover whole surface with non-woven or fabric or use a filler to achieve a uniform surface.
- Prime critical, pore-free or gypsum based surfaces with BEECK Bonding Coat fine or BEECK Gypsum Primer fine as required. Make samples beforehand.
- 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 Sensil.
- Add BEECK Fixative (or BEECK Base V) to optimally adjust BEECK Sensil to the substrate and use.
- Prime gypsum with BEECK Gypsum Primer.

## 2.3. Substrate and preparatory treatment

- **Lime plaster (PI/CSII), lime-cement plaster (PII), cement plaster (PIII):**  
Check plaster for drying and strength. Remove sinter skin on solid lime plaster with an Etching Fluid or grind off. Do not etch thin coat plasters and composite systems. Prime absorbent plaster with BEECK Fixative, thinned with 2 parts water.
- **Gypsum plaster, lime plaster, stucco, gypsum plaster 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 Gypsum Primer Fine.
- **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 Gypsum Primer fine if necessary.
- **Concrete:**  
Thoroughly clean with water and BEECK Formwork Oil Remover according to the factory specifications and rinse off with clean water. Test the wettability of the cleaned substrate by spraying on water. Primer coat of BEECK Gypsum Primer fine advisable. Optional use fabric instead to cover shrinking holes and edges which are typical for concrete formwork walls and ceilings.
- **Fabric, non-woven, textured/embossed wallpapers, woodchip wallpaper:**  
Ideal for hard-wearing fabric and glass fiber. Not for metal foils, plastics or vinyl wallpapers. Ensure homogeneous bonding over whole surface.
- **Old coatings:**  
Brush down mineral coatings and if chalking, stabilize with BEECK Fixative, thinned with 2 parts water. Completely remove distempers and tempera paints. Old plasto-elastic, synthetic resin-based coatings: grind off or blast clean, pore-deep. Clean firmly adhering, old, matt, emulsion-based coatings and precoat with BEECK Bonding Coat fine or BEECK Gypsum Primer fine.
- **Unsuitable substrates** are less stable, 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. Check plaster boards for discoloration, use an isolation primer if required. Apply renovation plaster to damp, salt contaminated 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.
- Especially when using tinted coatings, ensure qualified workers and a smooth, uninterrupted coating process.
- Before use, thoroughly stir BEECK Sensil with a powered mixing paddle.
- Add BEECK Fixative to make optimally coatable. Instead of BEECK Fixative, BEECK Base V could also be used as a thinner, especially when applying tinted Sensil.
- Do not use on hot surfaces.
- Minimum application temperature: +50°F
- Drying time: at least 12 hours per coat



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## 2.4.2. Application

With roller, brush or using an airless spraying method. Apply to self-contained areas with no overlapping, in one continuous pass by cross coating.

- **Application with roller or brush:**

- Brushes and rollers with a uniform coating finish are suitable
- Avoid roller edges, overlapping and overcoating coats that have already begun to dry.
- Apply BEECK Sensil uniform and fast by roller wall by wall and immediately distribute uniformly before paint starts to dry. Level out and smooth well without any excessive roller texture. Work in pairs. Cut-in edges smoothly and seamlessly, wet-on-wet, together with the main area. Try out on a test area on site.
- As a brushed surface, use a BEECK Mineral Paint Brush to spread in any particular direction.
- Coats:

*Primer coat:* mix with max. 5 % BEECK Fixative (or BEECK Base V).

*Topcoat:* After at least 12 hours, unthinned or diluted with no more than 3 % BEECK Fixative (or BEECK Base V).

- **Spraying method (airless):**

- Nozzle: 0.79 mm / 0.031 inch
- Always sieve the product before use and dilute with approx. 5 % BEECK Fixative (or BEECK Base V).
- Apply uniformly and as a thin coat; if necessary, use a brush or roller in one direction to uniformly lay-off.

## 2.5. Auxiliary products

- BEECK Gypsum Primer fine as an opaque white, efficient substrate on gypsum and old coatings.
- BEECK Bonding Coat fine on critical, pore-free and smooth surfaces.
- BEECK +P: photocatalytic additive. (Must be added by BEECK during the tinting process)

## 3. Application Rate and Container Sizes

The application rate, i.e. the quantity required for smooth, normally absorbent substrates is approx. 250-300 sf/gal per coat. It is recommended to try out on a test area on site to determine exact application rate.

*Container sizes:* 1 Gal / 4 Gal

## 4. Cleaning

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

## 5. Storage

Stored cool and frost-free, BEECK Sensil 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 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 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 colors 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.