



BEECK Insil Senza

Titanium-oxide-free sol silica paint iaw. VOB/C DIN 18363 2.4.1. for indoors

1. Product properties

Open-pored Sol indoor silica paint iaw. VOB/C DIN 18363 2.4.1 for contemporary, environmentally aware interior design, and also in the historical context. By avoiding the industrially manufactured white pigment titanium oxide, the product has special depth of light, exquisite light strength and vividness in lime-white and pastel-colored nuances. Ideal for true-to-style renovations for landmarks and old building renovations. BEECK Insil Senza contains silicifying potassium silicate as a binder. Silicification generates a permanently bonded unit with the mineral-based substrate.

1.1. Composition

- Purely mineral-based potassium silicate, silica sol
- Mineral pigments: light-fast and of natural origins, no titanium oxide as white pigment
- Organic content < 5 % (VOB/C DIN 18363 2.4.1.)
- Solvent-free, low emissions and VOC

1.2. Technical properties

1.2.1. Overview

- Cloth-matte appearance, modeled after historical whitewashing
- Appropriate for historic buildings, titanium oxide-free
- Highly-permeable for water vapor and CO₂
- Opaque in 2 to 3 coats
- Mold-resistant due to alkalinity
- Non-flammable
- Natural alkalinity counteracts bacteria and mold

1.2.2. Important construction characteristic values

Parameter	Value	Conformity
Density 20°C:	1.42 kg / L	
pH value _{20°C} :	11	
W ₂₄ value:	> 0.5 kg / (m ² h ^{1/2})	
s _d value (H ₂ O):	0.01 m,	
Wet abrasion resistance:	class 2	DIN EN 13300
Grain:	fine	DIN EN 13300
Sheen at 85°:	dull matte	DIN EN ISO 2813
Flammability class:	A2 non-flammable	DIN EN 13501-1, DIN 4102
VOC content (max.):	2 g / L	ChemVOCFarbV, cat. A / a

1.2.3. Color hue

- *Lime white* opaque barite/lime pigmentation.
- Factory-tinted pastel-color (FG I + II) starting at minimum order quantity as per product line.

2. Application

2.1. Substrate requirements

- The substrate must be clean, dry, solid, and have good adhesion. It must also be free of efflorescent substances and release agents.
- Inspect new plaster for dryness and strength.
- Carefully repair breakouts and defects with the same material and texture. Refurbish cracked substrates for plastering. Prepaint surfaces with hairline cracks and texture deficiencies with BEECK gypsum primer coarse.
- Ensure uniform substrates and careful processing on optically demanding surfaces and in side lighting.

2.2. Abbreviated information for standard application

- Two to three coats of BEECK Insil Senza.
- On critical surfaces, old dispersions and gypsum: Primer coat of BEECK gypsum primer fine or coarse.

2.3. Substrate and pretreatment

- **Lime plaster (P/CSII), lime-cement plaster (PII), cement plaster (PIII):**
Inspect plaster for dryness and strength. Remove or grind off sinter skin on solid lime plaster with BEECK etching fluid; do not etch thin-layered plaster and composite systems. Primer absorbent plaster with BEECK fixative, diluted with 2 parts water. Saturate still bonding but surface-crumbling plaster several times with 1 part BEECK fixative and 5 parts water.
- **Gypsum plaster, gypsum-lime plaster, lime-gypsum plaster:**
Apply a primer coat of BEECK gypsum primer fine / coarse. Grind off sinter skin as needed.



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- **Gypsum plaster board:**
For gypsum plaster board, note professional installation and required surface finish and flatness tolerances based on existing building and sidelighting conditions (VOB/C and quality level 3 or 4 as per bulletin No. 2 Bundesverband der Gipsindustrie e.V.). Apply a primer coat of BEECK gypsum primer fine / coarse over the entire surface; alternatively glue wall fleece over the entire surface, in particular for optically demanding coats.
- **Lime sandstone, kiln brick, clay:**
Clean thoroughly, test/inspect for absorption capacity, moisture damage, and leeching (e.g. salt stains). Repair / replace brittle stones and joints. Apply a primer coat of BEECK gypsum fine / coarse, or directly with BEECK Insil Senza. Clay: allow to dry to household moisture content; use broom to brush off crumbling excess grain; test under building conditions.
- **Concrete:**
Follow factory instructions to thoroughly clean with water and BEECK form oil remover, followed by rinsing off with clear water. Test wettability of the cleaned substrate by spraying with water. Optionally test primer coat with BEECK gypsum primer fine / coarse or BEECK Insil Senza.
- **Woodchip wallpaper, glass fabric, wall fleece:**
Verify complete surface adhesion, in particular in seam area. Only for alkaline-resistant fabric and paper.
- **Old paint:**
Brush off mineral-based paints, and, if chalking, solidify with BEECK fixative, diluted with 2 parts water. Completely wash off glue and tempera paints. Remove plasto-elastic old synthetic-resin-based paint down to pores. Clean high-bonding, matte old dispersion-based paint and prepaint with BEECK gypsum primer fine / coarse.
- **Unsuited substrates** include leeching, organic, and not alkaline-resistant substrates, e.g. engineered wood (MDF, OSB) and plastics.
- **Deficient substrates** call for a differentiated approach. Apply protective rendering on basement walls and areas with evidence of salt and moisture damage.

2.4. Processing instructions

2.4.1. General instructions

Verify substrate suitability as defined by VOB (see 2.1. and 2.3.). Note absorption capacity, strength, and texture of the relevant substrate. Test demanding and critical surfaces. Ensure qualified processing.

- Carefully cover and protect untreated surfaces, in particular glass, ceramics, window sills, expansion joints, paint coats and anodized finishes against overspray.
- Supply personal protective gear.
- Paint self-contained surfaces exclusively with containers from the same manufacturing batch.
- Prior to use, thoroughly mix BEECK Insil Senza with electrical agitator.
- Add water to optimize for brushing.
- Do not apply on heated surfaces.
- Minimum processing temperature: +8°C
- Drying time: no less than 12 hours per coat

2.4.2. Application

With roller, brush, or with airless spray method. On self-contained surfaces, apply over-cross as a thin, uniform film without overlap in a single pass.

- **Application with roller or brush:**
 - Suited for rollers and brushes with uniform brush pattern.
 - Avoid roller edges, overlaps, and drying.
 - Blend in by feathering edges, wet-on-wet, together with the surface.
 - As brushed finish, blend in with random stroke pattern using a BEECK mineral paint brush.
 - Coats:
Primer coat: add approx. 5 % - 10 % water to adjust for brushing.
Intermediate and topcoats: After no earlier than 12 hours, apply undiluted or adjusted for brushing with max. 5 % water.
- **Spray method (airless)**
 - Nozzle: 0.79 mm / 0.031 inch.
 - Product must be screened prior to use.
 - Apply in an even thin layer, then evenly blend in with brush or roller as needed.

2.5. Support products

- BEECK gypsum primer fine or coarse as opaque, white, cost-effective primer on gypsum and old coats. BEECK gypsum primer coarse (grain: 0.4 mm) also to even out hairline cracks and minor texture defects.
- BEECK quartz filler P, fiber-reinforced slurring additive (powder) for filled primer and intermediate coats. Mix 4 kg BEECK quartz filler P with each 12.5 L bucket of BEECK Insil Senza and dilute with approx. 2 l water. Apply with roller or brush in a uniform pattern without brush marks and grain pockets. Topcoat with BEECK Insil Senza fine, no slurring additive.



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3. Yield and container sizes

The yield for smooth, normally absorbing substrates is approx. 0.14 L BEECK Insil per m² and pass. Determine substrate-related yield variances and the required number of coats on the object.

Container sizes: 1 L / 5 L / 12.5 L

4. Cleaning

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

5. Storage

12 month shelf-life if stored in cool and frost-free conditions.

6. Hazard notices, safety instructions, and disposal

Note EC material safety data sheet. Material safety data sheet available on request. Keep out of reach of children. Do not get in eyes, on skin, or on clothing. Wear safety goggles/ facial protection. The product is alkaline. Do not inhale vapors, airborne spray, and dust. Carefully cover areas surrounding painted surfaces, immediately wash off overspray with water. Dispose in compliance with statutory regulations.

- Waste code for residual product: 080112

7. Declaration

This technical information is intended to advise you based on our findings and practical experience. All notices are non-binding. They do not relieve the user from performing their own substrate-dependent tests for product suitability and processing method. Technical changes due to product development made without notice. Third-party additives for tinting, diluting, etc. are not approved. Test color prior to processing. This leaflet automatically expires when a revised edition is published. The details in the EC safety data sheets in their current version are binding for the classification as per hazmat directive, disposal, etc.