

BEECK Sensil SAN

Silification-active Sol silica paint iaw. VOB/C DIN 18363 2.4.1. for indoor areas at risk of mold.



1. Product properties

Highly diffusion-capable interior silica paint with BEECK ASF® *ActiveSilicaFormulation* for indoor surfaces at risk of mold, such as kitchen, wellness zones, warehouses, production areas, and basements, including old building remodeling and landmark care. Ideal for lime and cement plaster, remedial plaster, concrete and drywall. Silification generates a permanent microporous bond with the substrate with ideal construction-physical properties.

BEECK Sensil SAN counteracts mold in five ways:

1) moisture-regulating, capillary texture; 2) high alkalinity; 3) lithium silicate as a mineral-based antiseptic; 4) photocatalytic protective action 5) microorganisms are denied a nutrient substrate.

As a silifying paint coating system, BEECK Sensil SAN supports all remedial mold infestation measures, such as drying out building walls and ambient air moisture removal. Extensive construction-physical and/or space-hygiene deficiencies cannot be corrected strictly by the choice of the coating system.

1.1. Composition

- Purely mineral-based potassium silicate, silica sol, lithium silicate
- Mineral pigments: light-fast and of natural origin.
- Mineral-based photocatalysts
- Organic content < 5 % (VOB/C DIN 18363 2.4.1.)
- Solvent-free, low VOC and emission levels
- No additives of organic-synthetic biocides, fungicides, and preservation agents

1.2. Technical properties

1.2.1. Overview

- Used for interior applications
- BEECK ASF® *ActiveSilicaFormulation*
- Maximum wet abrasion resistance class 1, coverage properties class 1
- Mold-resistant without organic-synthetic fungicide additives
- Natural alkalinity counteracts bacteria and mold
- Photocatalytically active against organic substances such a dirt film, air pollutants, and odor particles
- Highly-permeable for water vapor and CO₂, reduced propensity to form condensation
- Non-flammable
- Not film-forming, thermoplastic, does not contain softeners, no fogging effect
- Cloth-matte, mineral-based finish with light-fast mineral-based pigmentation
- Resistant to conventional cleaning agents and disinfectants
- Valuable construction-biological alternative to toxin-based mold-resistant paints

1.2.2. Important construction characteristic values*

Parameter	Value	Conformity
Density 20°C:	1.49 kg / L	
pH value _{20°C} :	11	
Dynam. viscosity 20°C:	5,000 mPas	
W ₂₄ value:	> 1.00 kg / (m ² h ^{1/2})	DIN EN 1062-3
s _d value (H ₂ O):	0.01 m	DIN EN 1062-1
High opacity / contrast ratio**:	class 1	DIN EN 13300
Wet abrasion resistance:	class 1	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

* applies for white ** Yield at contrast ratio: 6 m²/l.

1.2.3. Color hue

- White, off-white and ready-mixed in pastel colours (colour groups I, II), see product range.

2. Application

2.1. Substrate requirements

- The substrate must be clean, dry, solid, and have good adhesion, be alkaline resistant and saponification-stable. It must also be free of efflorescent and discoloring substances and release agents.
- Suited for porous, absorbent, matte, mineral-based, as well as organically modified substrates with good resistance to abrasion and water.
- Professionally disinfect and clean mold-infested substrates. Remove dirt, mold stains, etc. down to pores, bleach as



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needed. Note safety instructions when handling chemicals and spore-infested substrates, wear personal protective gear. Professional mold remediation for major infestation.

- Ideal protective effect on fresh lime/lime-cement plasters. Creates a moisture-regulating, capillary-active permanent bond with high absorption capacity and alkalinity reserve.
- Observe sufficient curing time, drying, and hardening for new plaster.
- Carefully repair breakouts and defects with the same material and texture.
- Refurbish cracked substrates for plastering. Cover the entire surface of mixed substrates and filler repairs with glass fabric or trowel in order to achieve a uniform coating base. Apply a coat of BEECK quartz filler or BEECK gypsum primer coarse over the entire surface of finer texture defects.
- As needed, pretreat the entire surface of critical, smooth, or gypsum-based substrates with BEECK adhesive primer and/or BEECK gypsum primer, test.
- Ensure uniform substrates and careful processing on optically demanding surfaces.

2.2. Abbreviated information for standard application

- Two coats of BEECK Sensil SAN.
- Optimize BEECK Sensil SAN for substrate and processing by adjusting with BEECK SOL-Fixative.
- On gypsum-based substrate, apply a primer coat with BEECK Gypsum primer thin/coarse.

2.3. Substrate and pretreatment

- **Lime plaster (Plc/CSII), lime-cement plaster (PII), cement plaster (PIII), remedial plaster, potassium silica:**
Inspect plaster for dryness and strength. On solid lime plaster, grind off sinter skin or remove with BEECK Etching fluid as per factory instructions, do not etch thin-layered plaster. Primer crumbling, absorbent or chalking substrates with BEECK SOL-Fixative.
- **Gypsum plaster, lime plaster, gypsum stucco, gypsum plasterboard:**
For gypsum plasterboard, note professional installation and required surface finish and flatness tolerances based on existing building conditions (VOB/C and quality level 3 or 4 as per technical bulletin No. 2 Bundesverband der Gipsindustrie e.V.). Primer with BEECK Gypsum primer; glass fabric as alternative. Apply an initial coat of BEECK Gypsum primer on gypsum plaster and stucco. Avoid gypsum substrates in areas at risk of mold.
- **Lime sandstone, kiln brick, cement stone, clay:**
Clean thoroughly, test/inspect for absorption capacity, moisture damage, and leeching (e.g. salt stains). Apply a primer coat of BEECK SOL-Fixative on absorbent substrates. As needed, surface-grind clinker brick and ceramic, primer with BEECK bonding coat if required. Allow clay to dry.
- **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. Apply a primer coat of BEECK SOL-Fixative on absorbent substrates.
- **Glass fabric:**
Note complete surface adhesion, including in seam area. Suited for glass fabric, not for vinyl wallpaper. Due to microbiological contamination, fabric and woodchip wallpapers are unsuited in areas at risk of mold.
- **Old paint:**
Brush off mineral-based paints, and, if chalking, solidify with BEECK SOL-Fixative. Completely wash off glue paints. Clean highly-bonding old synthetic-resin-based paint, prepaint with BEECK Gypsum primer as needed. Completely remove enamel, latex, and high-gloss synthetic resin paint. Test critical substrates. Film-forming paints are unsuited in areas at risk of mold.
- **Unsuited substrates** include low-strength, leeching, plasto-elastic, saponifying, or not alkaline-resistant substrates, e.g. engineered wood (MDF, OSB) and plastics.
- **Deficient substrates** call for a differentiated approach. Caution with discoloration, e.g. on old, wet gypsum plasterboard; test first and apply isolating coat as needed. Basement walls, etc. with salt and moisture damage: apply protective rendering and/or professionally enclose with calcium silica boards. Repair mold-infested surfaces

2.4. Processing instructions

2.4.1. General instructions

- Verify substrate suitability. 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 Sensil SAN with electrical stirrer.
- Optimize BEECK Sensil SAN for brushing by adding BEECK SOL-Fixative.
- Minimum processing temperature: +12°C. Drying time: no less than 12 hours per coat



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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.
- Roll on BEECK Sensil SAN, then evenly spread and texture wet-on-wet with rapid strokes, avoiding visible edges and roller marks. Work in pairs on larger surfaces. 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:
 1. *Primer coat:* adjust for brushing with max. 10 % BEECK SOL-Fixative.
 2. *Topcoat:* Wait at least 12 hours, then apply undiluted or with max. 5 % BEECK SOL-Fixative.

- **Spray method (airless)**

- Nozzle: 0.79 mm / 0.031 inch. Prior to use, screen product and diluted with approx. 5 % BEECK SOL-Fixative.
- Apply in an even thin layer, then evenly blend in with brush or roller, avoiding marks.

3. Yield and container sizes

The yield for normally absorbing substrates is approx. 0.15 - 0.17 L BEECK Sensil SAN per m² and pass. Determine substrate-related yield variances on the building, in particular on very smooth or rough substrates.

Container sizes: 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 tinting pastes, thinners, primers, 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.