

# BEECK Quartz Paint

**Silicification active, extremely water vapour permeable interior silicate paint to VOB/C DIN 18363 2.4.1. Ideal for mineral substrates in historical buildings**

## 1. Product Properties

Ready-to-use active silicate paint for mineral substrates in interior areas, especially for firm lime and lime-cement plasters including renovation plasters. Extremely silicification-active and non-vapour retarding. Available in lightfast mineral colours. BEECK Quartz Paint 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. BEECK Quartz Paint is intended for historical interiors with high humidity and solid, uninsulated external walls. Condensation in only rarely or weakly heated rooms (for example, churches) is absorbed by the highly diffusible BEECK Quartz Paint and the absorbent mineral substrate and does not run off causing soot and dirt plumes to form on the walls. The sorbency of the mineral unity of coating and substrate buffers extreme moisture fluctuations and helps to achieve a balanced room climate.

**BEECKASF®**  
Aktiv Silikat Formulierung

### 1.1. Composition

- Binder: pure mineral potassium water glass
- Mineral pigments: lightfast, highly alkali-resistant, of natural origin
- Silicification-active extenders
- Organic content < 5% (VOB/C DIN 18363 2.4.1.)
- Free from solvents, low VOC content

### 1.2. Technical properties

#### 1.2.1. Overview

- Use on interior surfaces
- BEECK ASF® Active Silicate Formulation
- Extremely water vapour permeable, ideal building physics properties
- Capillary-active and sorbable
- Does not tend to form condensation and dripping water
- Free from thermoplasticity
- Attractive lustred lime effect
- Colour range suitable for listed buildings
- Nonflammable
- Natural alkalinity helps to prevent bacteria and mould

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

Parameter	Value	Conformity
Density 20°C:	1.54 kg / L	
pH value 20°C:	11	
Dynamic viscosity 20°C:	6,500 mPas	
W24 value:	> 1.00 kg / (m <sup>2</sup> h <sup>1/2</sup> )	EN 1062-3
s <sub>d</sub> value (H <sub>2</sub> O):	0.01 m	EN ISO 7783-2
Hiding power / Contrast ratio:	Class 2	EN 13300
Wet-scrub resistance:	Class 2	EN 13300
Grain size:	fine	EN 13300
Gloss level at 85°C:	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

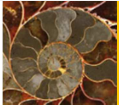
#### 1.2.3. Colour

- White and Off-White and ready-mixed in the 200 mixed colours of the BEECK Mineral Paint Colour Chart.
- Colour groups: I – IV
- Tintable 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.
- Can be used on porous, absorbent to water-repellent mineral surfaces.



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- Check drying and strength of new plaster.
- Carefully make good chipped surfaces and misses with the same type of material and the same texture.
- Use plaster to repair cracked substrates. Areas with hairline cracks, made good plaster and minor structural defects: precoat the whole surface with BEECK Quartz Filler. Try out on a test area. Alternatively use fabric all over.
- 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 Quartz Paint.
- For the primer and topcoat, add BEECK Fixative to BEECK Quartz Paint to optimally adjust it to the substrate and use.
- On critical or gypsum-based substrates apply a primer coat of BEECK Quartz Filler, BEECK Bonding Coat Fine / Coarse or BEECK Gypsum Primer Fine / Coarse, depending on the requirements. Then apply two topcoats with BEECK Quartz Paint, white or tinted.
- Note and follow listed building conservation specifications for all work in historically valuable buildings.

## 2.3. Substrate and preparatory treatment

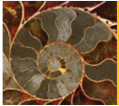
- **Lime plaster (PI/CSII), lime-cement plaster (PII), cement plaster (PIII), renovation plaster:**  
Grind off sinter skin on solid new plaster or etch with BEECK Etching Fluid according to the factory specifications. Do not etch thin coat plasters and composite systems. Prepare highly absorbent lime plaster by applying with BEECK Fixative, thinned with 2 parts water. To prepare crumbling or sanding plasters, which are nonetheless firm: repeatedly flow coat with 1 part BEECK Fixative and 5 parts water until they are saturated. Made good plaster and plaster with hairline cracks: precoat the whole surface with BEECK Quartz Filler. Try out on a test area. Replace plasters with moisture damage with renovation plaster. Try out first on a test area of air-lime plasters to confirm stability.
- **Gypsum plaster, plaster stucco:**  
Grind off any sinter skin. Apply primer coat with BEECK Gypsum Primer Fine/Coarse.
- **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 Gypsum Primer Fine / Coarse. Alternatively cover with fabric all over.
- **Brick, calcium silicate masonry, natural stone:**  
Clean substrate, make good crumbling joints and bricks. Check for absorbency, moisture damage and efflorescence (e.g. salt edges). Prepare absorbent substrates with BEECK Fixative, thinned with 2 parts water.
- **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 or Coarse advisable, alternatively directly with BEECK Quartz Paint. Optional use fabric instead to cover shrinking holes and edges which are typical for concrete formwork walls and ceilings.
- **Fabric, nonwoven wall coverings, woodchip wallpaper:**  
Only for alkali-proof, water-wettable fabric and paper. Not for metal foils, plastics or vinyl wallpapers. Ensure homogeneous bonding over whole surface, without overlapping.
- **Silicate or lime wash coatings:**  
Brush down and if chalking, consolidate with BEECK Fixative, thinned with 2 parts water. Completely wash off water soluble distempers, aniline and tempera paints. Clean matt, adherent emulsion coatings, apply a primer coat of BEECK Gypsum Primer Fine/Coarse. Completely strip or grind off oil paint, lacquer and latex coatings.
- **Unsuitable substrates** are efflorescent, organic and non alkali-resistant substrates, e.g. wood-based materials (MDF, OSB), clay or loam and plastics. Areas with hygroscopic or rising damp.
- **Defective substrates** require a differentiated approach. Apply renovation plaster to damp, salt contaminated areas, 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.



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- Provide personal protective equipment.
- Only use containers from the same production batch to coat self-contained areas.
- When using tinted coatings, ensure sufficient qualified workers and a smooth, uninterrupted coating process.
- Before use, thoroughly stir BEECK Quartz Paint with a powered mixing paddle.
- Add BEECK Fixative to optimise.
- Do not use on hot surfaces.
- Minimum application temperature: +8°C
- Drying time: at least 12 hours per pass.

## 2.4.2. Application

With brush, roller or using 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:**
  - Preferably using BEECK Mineral Paint Brush, in no particular direction and seamless, as “brushed surface”, with lime wash-like look and feel suitable for listed buildings.
  - Avoid roller edge marks, ridges and joins. Use short piled rollers with uniform coating finish.
  - Cut-in edges smoothly and seamlessly, wet-on-wet, together with the main area.
  - Coats:  
Primer coat: Depending on the substrate, mix product with around 5% – 10% BEECK Fixative.  
Topcoat: After at least 12 hours, unthinned or made optimally coatable with no more than 5 % BEECK Fixative.
- **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 to lay-off.

## 2.5. Auxiliary products

- BEECK Etching Fluid for removing sinter layers from new plaster. Do not etch thin coat plaster, composite systems and gypsum.
- BEECK Quartz Filler P, fibre-reinforced, powdery slurry additive for primer and intermediate coat. Mix a 12.5 L bucket of BEECK Quartz Paint with 4 kg BEECK Quartz Filler P and thin with 2 to 4 kg BEECK Fixative. Apply smoothly and seamlessly using a BEECK Mineral Paint Brush. Apply topcoat of BEECK Quartz Paint.
- BEECK Quartz Filler, fibre reinforced, slurry priming coating for covering hairline cracks, making good render and minor structural defects. Apply over whole surface with the brush.
- BEECK Gypsum Primer Fine or Coarse (0.4 mm), opaque white silicate-based primer on gypsum-based, weak silicification and organic substrates.

## 3. Application Rate and Container Sizes

The application rate, i.e. the quantity required for smooth, normally absorbent substrates is approx. 0.12 L BEECK Quartz Paint per m<sup>2</sup> and pass. Try out on a test area on site to determine substrate-related 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 Quartz Paint 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 vapours, 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 colours before use. This information sheet automatically becomes invalid when a new edition is issued. The information in the



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current version of the EC Safety Data Sheets is binding for classification according to the Hazards identifications, disposal considerations, etc.