TECHNICAL DATA SHEET
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BEECK
kompromisslos mineralisch

Full Colour Silicate Paint

BEECK *ASF* ®
*A*ctive *S*ilicate *F*ormulation

Silicification active full colour paints to VOB/C DIN 18363 2.4.1. For tinting BEECK one-pack silicate paints and for full colour painting and decorating

Purely mineral pigmented for individual tinting of one-pack BEECK silicate systems in interiors and exteriors such as Beeckosil. Can also be used for full colour façade coatings and paintings on plaster, render and concrete. Due to the heating effect, only use lightened coatings with lightness value (LV) > 40 on external thermal insulation composite systems (ETICS).

1. Product Properties

Strongly pigmented silicate emulsion paint to VOB/C DIN 18363 2.4.1. in 11 different full colours. Silicification, the chemical reaction between mineral substrate, pigments and potassium water glass does not create a surface film, but instead produces a microporous, inseparable unit of substrate and coating. Optimum silicification also produces ideal building physics properties. Maximum colourfastness A1 in accordance with BFS Information Sheet No. 26 thanks to the BEECK ASF® Active Silicate Formulation and pure mineral pigmentation!

1.1. Composition

- Pure mineral potassium water glass
- Alkali resistant 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 use on interior surfaces and on façades
- High yielding and intensely coloured
- Can be coated over practically an unlimited number of times, as is non film-forming
- Nonflammable
- Unlimited lightfastness and UV stability
- Shading suitable for listed buildings
- Bronzing due to weak surface chalking
- Free from solvents, biocides and preservatives
- Natural alkalinity helps to prevent algae and mould

1.2.2. Important building physics characteristics*

Parameter	*Value*	*Conformity*
Density $_{20°C}$:	1.34 – 1.46 kg/L	
pH value $_{20°C}$:	11	
Dynamic viscosity $_{20°C}$:	approx. 4,200 mPas	
W_{24} value:	< 0.08 kg / ($m^2h^{1/2}$)	
s_d value (H_2O):	0.03 m	
Colourfastness:	Class A1	BFS Information Sheet No. 26
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/c

* Values depend on colour

1.2.3. Colour

- 11 full colours of the BEECK Mineral Paint Colour Chart:
  Black, Umber, Ochre Yellow, Maize Yellow, Lemon Yellow, Green, Cobalt Blue, Ultra Blue, Wine Red, Oxide Red, Brown.
- Can be mixed together as required as well as with Beeckosil, BEECK Concrete/Stone Glaze and BEECK White Quartz Paint.

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2. Use

2.1. Substrate requirements

- Can be used on porous, absorbent to water-repellent, mineral, silicifiable substrates.
- The substrate must be clean, dry, firm and stable and must be free from efflorescent and separating substances.
- Check drying and strength of new plaster or render.
- Carefully make good chipped surfaces, cracks and misses with the same type of material and texture.
- Use plaster to repair cracked substrates. Areas with hairline cracks and minor structural defects: precoat the whole surface with BEECK Quartz Filler. Try out on a test area on site.
- Clean pressure-sensitive surfaces carefully.
- Prepare and re-treat algae infested façades with BEECK Fungicide according to the factory specifications.

2.2. Brief information on the standard system as a full colour coating

- Two to three coats of BEECK Full Colour Silicate Paint as required.
- Optimally adjust BEECK Full Colour Silicate Paint to the substrate and use by adding fixative.
- Apply a primer coat of BEECK Bonding Coat Fine / Coarse or BEECK Quartz Filler on critical surfaces as required.
- Full colour coatings produce high-quality visual finishes. Ensure qualified use, substrate suitability and careful preparatory treatment. Try out beforehand on test area under on site conditions.

2.3. Substrate and preparatory treatment

- ***Lime plaster/render (PI/CSII), lime-cement plaster/render (PII), cement plaster/render (PIII):***
  Check drying and strength of plaster or render. Use BEECK Etching Fluid to remove sinter skin on solid plaster or render, or grind off. Do not etch thin coat plasters and renders and composite systems (for example, ETICS). Preset absorbent, weakly sanding plaster or render with BEECK Fixative, thinned with 2 parts water.
- ***Natural stone, brick, calcium silicate masonry, concrete, aerated concrete, fibrated cement:***
  Clean thoroughly, check for moisture damage, salt edges and efflorescence, make good defective joints. Preset absorbent substrates with BEECK Fixative, thinned with 2 parts water. Flow coat weakly efflorescent and highly absorbent substrates with BEECK Silane Primer. Use a high-pressure cleaner and formwork release oil remover to clean concrete pore-deep. Rinse with plenty of clean water. Prime fibrated cement with BEECK Silane Primer and BEECK Bonding Coat Fine/Coarse. Try out on a test area. Slurry intermediate coat of BEECK Quartz Filler in case of hairline cracks or minor structural defects.
- ***Old mineral coatings:***
  High-pressure clean and brush down. Completely remove film-forming, cracked and less adherent old coatings. Preset chalking, absorbent and crumbling surfaces with BEECK Fixative, thinned with 2 parts water. Intermediate coat of BEECK Quartz Filler if required.

- **Unsuitable substrates** are horizontal weathered, efflorescent, gypsum or lime-based substrates as well as non-firm old coatings.
- ***Defective substrates*** require a differentiated approach. Apply a renovation render to damp, salt contaminated surfaces and base areas, and treat the whole surface with BEECK Quartz Filler.

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.

- 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.
- Ensure an even substrate, a sufficient number of qualified workers and a smooth, uninterrupted coating process for tinted and full coloured coats.
- Stir Beeckosil, Full Colour Silicate Paint or tinted product thoroughly with a powered mixing paddle before use.
- Do not use in wet conditions, if there is a risk of frost, on hot surfaces or in the blazing sun.
- Minimum application temperature: +8°C
- Drying time: at least 12 hours per coat
- Protect fresh coats from rain and the blazing sun; hang up scaffolding sheeting in front of the surface worked on.

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2.4.2. Use as full colour paint

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

- ***Application with roller or brush:***
  - Rollers and brushes with a uniform coating finish are suitable.
  - Avoid roller edges, ridges, overlapping and overcoating coats that have already begun to dry, especially in scaffold working areas.
  - 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: Thin primer and possible intermediate coat depending on substrate and method with 10 % - 20 % BEECK Fixative.
    2. Topcoat: After at least 12 hours, improve coatability 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, then use a brush or roller to uniformly lay-off.

2.4.3. Use as tinting paint

- Use BEECK Full Colour Silicate Paint solely for tinting intended white one-pack silicate products, e.g. Beeckosil
- Before use, stir full colour paint and white paint thoroughly with powered mixing paddle.
- Tint the total quantity in one batch, e.g. in a drum or bucket.
- Only use containers of product from the same production batch to paint self-contained areas.
- Try out mixed colour on test area before use and check it matches the colour specification.

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 Full Colour Silicate Paint per m² and pass. Try out on a test area on site to determine substrate-related application rate differences.
Container sizes: 0.75 L / 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 Full Colour Silicate Paint 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.

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