



BEECK Universal Full Color Silicate

Mineral pigmented full color and tinting paint for e.g. BEECK mineral silicate systems

1. Product Properties

Full tone colors for tinting e.g. BEECK mineral silicate systems. Can be used on interior and exterior areas. Also, for full colored coatings and decorative painting on prepared, uniform substrates in the respective system. Silicification, the chemical reaction between mineral substrate, pigment and potassium water glass, produces inseparable bonding with the mineral substrate. The purely mineral pigmentation enables durable, lightfast and colorfast wall and façade coatings, even on suboptimum substrates. The surface is mineralized, the moisture content and tendency to soil are reduced.

1.1. Composition

- Pure mineral potassium water glass
- Alkali-resistant mineral pigments: lightfast and of natural origin
- Organic auxiliary agents and binders with content $\geq 5\%$
- Free from solvents, biocides and preservatives

1.2. Technical properties

1.2.1. Overview

- For use on interior and exterior surfaces and façades
- Intensely colored in all mineral tintable shades
- Permanently brilliant, even in full color
- Remineralises ETICS
- Aesthetic matt
- Diffusible and valuable building physics properties
- Capillary-active, prevents surface moistening
- Nonflammable
- Natural alkalinity helps to prevent algae and mold

1.2.2. Important building physics characteristics*

Parameter	Value	Conformity
Density 20°C:	1.18 – 1.38 kg / L	
pH value 20°C:	11	
Dynamic viscosity 20°C:	approx. 3,200 mPas	
W ₂₄ value:	< 0.20 kg/(m ² h ^{1/2})	
s _d value (H ₂ O):	0.08 m	
Colorfastness:	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 color

1.2.3. Color

- 11 full colors of the BEECK Mineral Paint Color 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 for tinting e.g. BEECK silicate systems.

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, as well as organically bonded surfaces with at least partial mineral character.
- 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. Renders with hairline cracks, residual coating and minor structural defects: precoat the whole surface with BEECK Quartz Filler. Try out on a test area on site.
- Depending on the requirements, precoat gypsum-based and organically bonded substrates with BEECK Bonding Coat Fine / Coarse or BEECK Gypsum Primer Fine / Coarse all over according to the factory specifications.
- Clean pressure-sensitive surfaces carefully.
- Prepare algae infested façades with a biological cleaner according to the factory specifications.



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

- Two coats of full color paint with BEECK Universal Full Color Silicate. Depending on the substrate, apply an additional intermediate coat for hues such as Lemon Yellow and Ultra Blue with weaker hiding power. Try out on a test area.
- Add BEECK Fixative or BEECK MBA Fixative to optimally adjust BEECK Universal Full Color Silicate to the substrate and use.
- For Glazing on absorbent surfaces BEECK Base V can be used according to directions for thinning the Universal Full Color Silicate
- Depending on the substrate, apply primer coat of BEECK Bonding Coat Fine / Coarse, BEECK Quartz Filler or BEECK Gypsum Primer Fine / Coarse as required.
- Full color coatings produce high-quality visual finishes. Ensure qualified use, substrate suitability and careful preparatory treatment. Check areas in glancing light. Try out on a test area under on site conditions beforehand.

2.3. Substrate and preparatory treatment

- **Old film-forming coatings, synthetic resin renders, external thermal insulation composite systems (ETICS):**
 - Remove all cracked or loosely bonded old coatings.
 - Check the adhesion and soundness of all remaining coats.
 - Thoroughly clean tightly bonded coatings and renders/stuccos.
 - Prime highly absorbent or crumbling surfaces with BEECK MBA-Fixative, thinned with 2 parts water.
 - Clean, treat and rinse all algae and fungi infested surfaces with a biological cleaner and a fungicidal treatment
 - Note regarding façade cleaning: synthetic resin renders/stuccos swell when they absorb water and are slow to dry, allow for sufficiently long drying periods between cleaning and coating. Clean composite systems, insulating renders and similar pressure-sensitive surfaces gently, without damaging the material.
 - Use BEECK Bonding Coat Fine / Coarse as a white primer coat on substrates which are non-absorbent and have an organic character.
 - In case of hairline cracks, residual coatings or minor structural defects, precoat the entire surface of the façade with BEECK Quartz Filler or BEECK Bonding Coat Coarse.
 - *Information on façade cleaning:* As synthetic resin plasters and renders swell if they absorb water and are slow to dry again, allow for sufficiently long drying periods between cleaning and coating.
 - Clean insulating plasters and renders and similar pressure-sensitive surfaces carefully. Use only light color coatings with lightness value (LV) > 40 on external thermal insulation composite systems (ETICS).
- **Raw Masonry, Bricks, Lime plaster/render (PI/CSII), lime-cement plaster/render (PII), cement plaster/render (PIII), concrete, aerated concrete, fiber cement:**
 - Check drying and strength of plaster or render.
 - Use an Etching Fluid to remove sinter skin on solid plaster or render, optionally grind, sand or blast off with abrasive media. Do not etch thin coat plasters and renders and composite systems (for example, ETICS).
 - Prime absorbent render with BEECK Fixative, thinned with 2 parts water.
 - To prepare sanding or dusting plasters and renders: repeatedly flow coat with 1 part BEECK Fixative and 5 parts water until saturated.
 - For added water repellency, flow coat highly absorbent and large-pored surfaces with HBP Silane 100.
 - Carefully repair damaged surfaces with the same type of material and replicate the same texture.
 - Rejuvenate old tired stucco and plasters to make them look new again or to help hide patches and repairs. Coat the entire façade with a first coat of BEECK Quartz Filler or BEECK Bonding Coat Coarse
 - Use high pressure cleaner and BEECK Formwork Oil Remover according to the factory specifications to clean concrete pore-deep and to remove any residual release agent, and then rinse with plenty of clean water.
 - Prime fiber cement boards on exterior façade areas with HBP Silane 100 and BEECK Bonding Coat Fine/Coarse. Try out on a test area.
- **Gypsum plaster or render, gypsum board:**
Prime all gypsum-based substrates with BEECK Gypsum Primer Fine / Coarse. Sand off any sinter layers before priming. Proper treatment of Gypsum board and gypsum fiber boards is critical for full color paints. Glancing light conditions on site can be challenging if proper installation and required surface prep is not adhered to.
- **If your substrate was not listed or if you have questions, contact your BEECK representative for recommended application and surface prep.**
- **Unsuitable substrates** are large horizontal or slightly sloping surfaces exposed to the weather, walking surfaces, unstable substrates, efflorescent surfaces containing salts and non-alkali-resistant substrates such as wood-based materials (MDF, OSB), many old oil based coatings, loam, gypsum, and plastics as well as non-firm and plasto-elastomeric coatings.
- **Defective substrates** require differentiated approaches. Contact your BEECK representative regarding recommended application and surface prep for your specific condition.
 - Clean, treat and rinse all algae and fungi infested surfaces with a biological cleaner and a fungicidal treatment..

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.



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- 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 colored coats.
- Stir Universal Full Color Silicate 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: 45°F (+8°C)
- Drying time: at least 12 hours between coats, protect from rain for 24 hours
- Protect fresh coats from rain and do not apply in blazing sun; hang up scaffolding sheeting in front of the surface.

2.4.2. Use as full color 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 in any particular direction.
 - Coats:
 - Primer coat:* Thin priming coat and possible intermediate coat, depending on substrate and method, with approx. 10 % BEECK Fixative or in some cases up to 10% clean water.
 - Topcoat:* After at least 12 hours.
- **Spraying method (airless):**
 - Nozzle: 0.79 mm / 0.031 inch
 - Always sieve the product before spraying.
 - 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 Universal Full Color Silicate solely for tinting e.g. BEECK Silicate systems.
- Before use, stir full color 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 color on test area before use and check it matches the color specification.

3. Application Rate and Container Sizes

The application rate, i.e. the quantity required for smooth, normally absorbent substrates is approx. 300-325 sq ft / gallon per coat. Try out on a test area on site to determine substrate-related application rate differences.

Container sizes: 1 Qt, 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 Universal Full Color Silicate 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.