



Technical Information Sheet, Rev. 02/2001

# **BEECK FULL COLOR SILICATE PAINTS**

Full color paints exclusively with mineral pigments for toning any one-component BEECK SILICATE PAINTS, except BEECKOTON and BEECK CONCRETE GLAZE. Available in 11 non-fading full colors.



# **Ranges of Application:**

Silicification-active one-component full color silicate paint for silicate painting as well as for toning and shading one-component BEECK silicate paints, e.g. BEECKOSIL, BEECK STONE GLAZE or BEECK QUARTZ PAINT.

Ideal for quick toning, also subsequently, on site, for making samples and retouching, for letterings and deco paintings.

For full color coating of all coatable mineral surfaces indoors and outdoors, see Surface and Pretreatment.

Surfaces with visible deficiencies such as structural flaws or hair cracks must be precoated with BEECK QUARTZ FILLER.

### **Processing:**

Carefully stir up BEECK FULL COLOR SILICATE PAINT before use.

► For use as a full color paint: Thin BEECK FULL COLOR SILICATE PAINT with approx. 5 to 20% BEECK FIXATIVE and apply crosswise with a soft mineral paint brush, roller or spray gun. Apply twice with a drying time of at least 12 hours inbetween. Contrasting or high traffic surfaces should be provided a third coat. Full color silicate paints require a uniform surface and must be applied sparingly, evenly and lap-free. Avoid dry seams. In case of strongly absorbent surfaces thin the top coat with up to 5% water, do not use FIXATIVE.

Minimum temperature: +5°C air and surface during processing and drying. Do not use on heated surfaces.

► For toning of one-component BEECK SILICATE PAINTS carefully mix using an electrical stirrer (drilling machine with a stirring whirl) until the color is homogeneous. If toning several containers, fill entire quantity in a barrel or hobbock. Gradually add BEECK FULL COLOR SILICATE PAINTS and check color. Formulations given in the BEECK COLORSIL and BEECK ANTIQUE Color Charts are reference mixtures that apply to BEECKOSIL only.

# **Technical Features:**

Unlike organically bound stainers (e.g. acrylic based stainers), BEECK FULL COLOR SILICATE PAINT does not set physically by "bonding", but through silicification – the chemical reaction between mineral surface, filler, pigments and potash waterglass. The exclusive use of non-fading mineral pigments provides an excellent color fastness, even on severely weathered facades. High covering and coloring qualities. Ideal compatibility with silicification-active BEECK SILICATE PAINTS, e.g. BEECKOSIL or BEECK QUARTZ PAINT.

# Water absorption and water-vapor

# diffusion characteristics: $\label{eq:W24} \begin{array}{ll} W_{24} \mbox{-value:} & < 0.05 \mbox{ kg/(m^2h^{1/2})} \\ s_d \mbox{-value (H_2O):} & < 0.03 \mbox{ m} \end{array}$

#### Physical/Technical Characteristics:

Density:	1.4 to 1.6 g/cm <sup>3</sup>
	(depending on color tone)
pH value:	11
Dynam. viscosity:	3,000 mPas
DIN 4102:	non-flammable / A2
Color tono	

#### Color tone:

Available in 11 full colors acc. to BEECK COLORSIL Color Chart:

ocher yellow, umber, brown, oxide red, black, green, ultrablue, lemon yellow, cobalt blue, wine red, corn yellow.

Can be mixed in any ratio with each other and with BEECKOSIL white.

#### Drying:

Safe to coat no sooner than after 12 hours. Protect fresh coatings from rain, e.g. using scaffold tarpaulin. **Yield:** 

On smooth, normally absorbent surfaces: approx. 0.13 I per coat and m<sup>2</sup>.

#### Available Sizes:

1 I, 5 I and 12.5 I.

#### **Cleaning:**

Clean appliances, tools and clothes with water immediately after use.

#### Storage:

Lasts at least 12 months when stored cool and free of frost.

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# **BEECK FULL COLOR SILICATE PAINTS**

## **Composition:**

One-component silicate system according to VOB DIN 18 363/2.4.1. Binder: potash waterglass, recovered from water, quartz sand and potash. Pigmented exclusively with non-fading alkali-resistant mineral pigments. Solvent and biocide-free. Low organic content of only approx. 3.5% artificial resins.

## **Surface and Pretreatment:**

#### **General Requirements:**

The surface must be clean, dry, solid, coatable and free of efflorescing salts. Suitable for porous, absorbent to water-repellent mineral surfaces. Check new plasters for dryness and stability. Touch up open spaces and flaws to match style and structure. Completely cover repaired surfaces with BEECK QUARTZ FILLER.

Slurry white silicate coating, ideal for covering hair cracks and fine structural deficiencies. Silicificationactive, non-film forming and absolutely durable. Apply once or twice by brush.

#### Suitable surfaces:

► Lime plaster (PIc), Lime based cement plaster (II), Cement plaster (PIII):

Use BEECK ETCHING FLUID to remove sinterskin from new plasters and to clean old plasters. Thin with 3-5 parts water and apply by brush. Rinse off after a few minutes using plenty of water. Prefixate absorbent plasters using BEECK FIXATIVE thinned with 2 parts water. Solidify superficially crumbly but coatable plasters by flow coating several times to saturation.

#### Natural stone, Brick:

Check for coatability, absorbency and efflorescences (e.g. salt marks). Touch up crumbly stones and joints. Prefixate or flow coat weakly efflorescing surfaces to saturation with BEECK SILANE PRIMER N.

▶ Lime sandstone, Aerated concrete:

Check and clean, then flow coat with BEECK SILANE PRIMER (indoors with BEECK INSULATING PRIMER). For aerated concrete use BEECK QUARTZ FILLER as a base coat.

Chalking silicate and lime coatings:

Brush or clean with high-pressure water jet, then solidify with BEECK FIXATIVE thinned with 2 parts water. Completely remove artificial resin based coatings down to the pores by stripping or blasting. For intermediate treatment use BEECK BONDING COAT or coat directly with BEECK SILICATE FILLER. Deficient surfaces require a special treatment. Unsuitable are surfaces that are gypsum or clay based, silicification-inactive or that have been treated to form film. The base e.g. of historical buildings exposed to salt should be renovated using a renovation plaster system acc. to WTA<sup>1</sup> guidelines. Further treatment with BEECK QUARTZ FILLER.

<sup>1)</sup> WTA Scientific-Technical Assocation for Building Maintenance and Monument Preservation, non-profit organization.

Subsequent hydrophobic treatment with BEECK BS PLUS should always be provided outdoors for surfaces exposed to rain and dirt, especially for representative facades. Reduces the absorption of water and noxious substances while maintaining the diffusion capacity  $[W*s_d < 0.005 \text{ kg/(mh^{1/2})}]$ . Thus, optimum building protection and durable attractivity of the coating.

Saturating flow coating of new silicate coatings with BEECK BS PLUS no sooner than after 7 to 10 days to allow for silicification to complete.

## Safety Instructions and Disposal:

► Hazard Class: not subject to identification requirements under Toxic Chemicals Ordinance/EC Directive. BEECK FULL COLOR SILICATE PAINT is alkaline. Protect skin and eyes from contact. Carefully cover all surfaces not to be treated, especially glass, ceramic and anodized surfaces. In case of contact, immediately rinse with plenty of water. Keep out of the reach of unauthorized persons.

Disposal of product remainders according to legal regulations. Disposal of empty containers through resource collection points.

▶ Waste Code: Product and Product Remainders (European Waste Code): 080199 (Coatings).

It is our objective to provide, through this technical information, advice based on our skills and practical experience. Any instructions given are non-binding and do not release the user from his or her liability to check for product suitability and application methods him/herself with regard to the surface used. Technical modifications may result from product development. Upon publication of a revised or new version, these instructions will automatically lose their validity. The details contained in the EU Safety Data Sheets in their current form dictate liability for classification in terms of the Hazardous Substances Regulation, disposal etc.

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