

BEECK BS PLUS

Highly alkali-resistant hydrophobing agent for colorless protection of absorbent mineral surfaces outdoors, such as facades. Provides long-term protection from penetrating humidity, pollution and infiltration through noxious substances in porous mineral building materials while maintaining the water vapor permeability.



Ranges of Application:

BEECK BS PLUS is a highly alkali-resistant combination of organosilicon substances for long-term preservation of mineral building materials such as concrete, natural stone, plaster, lime sandstone or porous brick. Also for subsequent hydrophobic treatment of silicate coatings. Long-lasting water repellency while maintaining the water vapor permeability. 12 year warranty on water repellent effect for protection against penetrating humidity from rain.

Processing:

BEECK BS PLUS is a deep-action product, applied by flow coating. Application to the facade twice to saturation, wet-in-wet with approx. 10 to max. 20 minutes inbetween. Appropriate tools: mechanical or electrical low-pressure pumps with a solvent-resistant hose. If necessary, remove nozzle. For smaller surfaces a solvent-resistant garden pump or pressure sprayer might be used as well.

Determine yield (reference values see below) by making samples on the building to be treated as only saturation of the substrate will ensure the long-term effect and meet warranty requirements. While processing, check for adequate material consumption acc. to the values obtained from sample.

Carefully cover all surfaces not to be treated and protect from splashes, e.g. using plastic cover sheets and adhesive tape. Avoid paint flow to adjacent surfaces.

Processing temperature: +3°C to +25°C air and surface. Do not use on heated or wet surfaces.

Silicate based new coatings require a silicification period of at least 7 to 10 days prior to hydrophobic treatment.

Technical Features:

BEECK BS PLUS provides long-term protection against penetrating humidity from rain for porous mineral building materials. Covers the building material's pores, thus making them water-repellent. Protects from capillary water absorption and thus from water-related corrosion of the building material, embedding of noxious substances and general pollution. Furthermore, dry building substances offer a better heat insulation and are less susceptible to algae growth. Dirt deposits are washed off by rain keeping the facade clean and in good shape. Water-vapor diffusion, i.e. the exchange of gaseous water vapor between the building material and the

atmosphere, remains unaffected by the hydrophobic treatment.

Water absorption and water-vapor diffusion characteristics:

W_{24} -value: < 0.03 kg/(m²h^{1/2})

s_d -value: 0.03 m

$W \cdot s_d$ -value: < 0.001 kg/(mh^{1/2})

Physical/Technical Characteristics:

Density: 0.79-0.82 g/cm³

Dynam. viscosity: < 50 mPas

BEECK BS PLUS is absolutely non-sticky when dry, highly alkali-resistant and neither film forming nor pore-clogging. For obtaining a lasting, deep-action hydrophobing, saturation of the upper building material layers is indispensable.

Color tone:

Clear-transparent. Virtually invisible when dry.

Drying:

Protect fresh hydrophobically treated surfaces from rain for at least 12 hours, e.g. using scaffold tarpaulin. Make sure to process during dry weather only.

Yield:

Depending on the absorbency of the surface: at least 0.25 l to 0.8 l per m². Make samples on the surface to be treated to obtain exact values.

Reference values for average yield (Ø): see Surface and Pretreatment.

Available Sizes:

5 l, 10 l and 28

Cleaning:

Clean appliances, tools and clothes with turpentine substitute or alcohol immediately after use.

Storage:

Lasts at least 18 months when stored cool in the airtight sealed container.

Composition:

Combination of silane-siloxane based organosilicon substances, dissolved in white spirit with a low content of aromatic solvents. On request also available dissolved in pure plant alcohol, recovered from fermented plant biomass (especially sugar beet). Pure plant alcohol is CO₂ indifferent and ecologically compatible. Observe Safety instructions especially regarding explosion protection requirements during processing.

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Surface and Pretreatment:

General Requirements:

The surface must be clean, dry, solid, coatable and free of ascending or retained humidity. Unsuitable for horizontal or only slightly tilted surfaces. Carefully remove crumbly spots, efflorescences and incrustations.

Carefully clean the surface by high-pressure water jet with hot water prior to hydrophobic treatment. Make samples to determine the best method for cleaning sensitive natural stones etc. Cleansers containing wetting agents should be used very sparingly and rinsed with plenty of water.

Suitable surfaces:

► Natural stone:

Check for porosity, absorbency and efflorescences. Clean with a neutral cleanser. Touch up defective joints and stones to match style and structure.

Ø-yield BEECK BS PLUS: approx. 0.4-0.8 l/m²; minimum penetration: 4-5 mm.

► Lime sandstone:

Clean carefully. Touch up defective joints and frost-damaged stones.

Ø-yield BEECK BS PLUS: approx. 0.4-0.7 l/m²; minimum penetration: 3-4 mm.

► Brick:

Clean carefully using BEECK CONCRETE AND STONE CLEANSER thinned with 2 to 5 parts water, using high-pressure water jet and hot water. Touch up defective joints and stones to match style and structure. Not to be used on glazed or non-absorbent stones or in case of extreme weathering and high salt content.

Ø-yield BEECK BS PLUS: approx. 0.4-0.7 l/m²; minimum penetration: 4-6 mm.

► Aerated concrete:

Clean carefully. Touch up defective joints and stones. Sand any protruding parts to level out. Coat with BEECK SILICATE PLASTERS.

Ø-yield BEECK BS PLUS: approx. 0.8-1.0 l/m²; minimum penetration: 6-8 mm.

► Exposed concrete, Fibrocement, Wood based cement:

Carefully remove pollution using high-pressure water jet with hot water and BEECK CONCRETE AND STONE CLEANSER. Minimum absorption quantity on dense concrete: 0.25 l/m². Flow coat especially saturatingly while ensuring long contact.

Ø-yield BEECK BS PLUS: approx. 0.25-0.6 l/m²; minimum penetration: 2 mm.

► New silicate coatings:

Hydrophobic treatment of new silicate coatings on porous mineral surfaces no sooner than 7 to 10 days after application of top coat to allow for silicification to complete. Protect from rain immediately after treatment.

Ø-yield BEECK BS PLUS: approx. 0.4-0.7 l/m²; minimum penetration: 3-6 mm.

► Deficient surfaces require a special preparation. Unsuitable are surfaces that are non-porous, solvent-swellable or coated to become oil-repellent or film forming.

For EPS heat insulation systems use BEECK BS 390 in plant alcohol.

In case of doubts, make samples. Hydrophobic treatments offer no protection against standing water. Therefore do not use as a protection against ascending water, e.g. close to the ground or in the base area. Recommendation: use Renovation Plaster.

Safety Instructions and Disposal:

► BS PLUS dissolved in plant alcohol:

Hazard Class: flammable (VbF B)!

► BS PLUS dissolved in white spirit:

Hazard Class: harmful (Xn), environmentally dangerous (N) and flammable (VbF A II)!

When applying, keep away from any ignition source, refrain from smoking and ensure proper ventilation. If necessary, use respiratory protection: gas mask and breathing equipment with filter A.

Always observe the professional associations' regulations for the prevention of accidents when handling building preservatives and solvents. Also refer to the corresponding EU Safety Data Sheets.

Carefully cover all surfaces not to be treated, especially lacquers, coatings, glass, ceramic and metal. In case of accidental contact, immediately remove using a solvent. Keep out of the reach of unauthorized persons.

Disposal of product remainders according to legal regulations.

► Waste Code: Product and Product Remainers (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.