

Banja Komerc Bekament DOO	TECHNICAL DATA SHEET	Edition 1	Date: December 24 2018
		Version 5	
BK-SIL Si&Si			RZ-TLP-026

1. PRODUCT AND COMPANY INFORMATION

Commercial product name: BK-Sil Si&Si

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2. DESCRIPTION, FIELD OF APPLICATION

BK-Sil Si&Si is a thin-layered, decorative, pasty, silicate-silicone plaster used for the protection of facade wall surfaces. It is characterized by solid adhesion to the base, exquisite workability, high level of hardness, resistance to fine, and good vapor permeability. It is resistant to UV radiation and atmospheric factors. Due to its characteristic it is recommended for use when renovating old objects or cultural monuments. Thanks to special silicone additives, its water permeability has been drastically reduced in relation to standard silicate plaster. BK-Sil Si&Si is made in two structures and multiple different granulations.

BK-Sil Si&Si Rajb – troweled structure (granulation 1.5 and 2 mm) BK-Sil

Si&Si Ful – full structure (granulation 1, 1.5, and 2 mm)

3. COMPOSITION

Chemical composition: Aqueous polymer emulsion, special silicone additives, water, additives, pigments, mineral fillers.

Hazardous substances: In accordance with the (EC) Regulation No. 1272/2008 on classification, labelling and packaging of substances and mixtures, through which the CLP/GHS classification and labeling system was introduced into law, this product is not classified as a hazardous product.

4. TECHNICAL CHARACTERISTICS

Density, g/dm (EN ISO 2811-1)	1,600-1,800
Adhesion, MPa (EN 1542)	> 0.3 according to EN 15824
Water absorption, kg/(m ² h ^{0.5}) (EN 1062-3)	0.1-0.5 (Class W ₂ according to EN 15824)
Vapor permeability, g/(m ² d) (EN ISO 77832)	15-150 (Class V ₂ according to EN 15824)

Heat conductivity-$\lambda_{10,dry}$, W/(m.K) (EN 1745 Table A.12)	0.33		
Viscosity, mPas (EN ISO 2555)	60,000-80,000		
Indicative consumption, kg/m²	1 mm	1.5 mm	2 mm
\triangle troweled structure	/	2.6	3.0
\triangle full structure	2.4	2.8	3.3
Packaging, kg	25;		

5. OTHER CHARACTERISTICS

Physical appearance: White or colored pasty mass

Odor: Specific of the polymer binder/water glass compound

Dry matter content (EN ISO 3251), %: ~85

VOC* content, g/l: < 1 (maximum allowed value A (c) 40 g/l)

*VOC: Volatile Organic Compound;

Possibility of choosing shades according to Bekament's color charts in over 400 shades. We do not guarantee a complete match according to the color charts of other manufacturers, nor do we guarantee absolute repeatability of shades.

6. SURFACE PREPARATION

The surface to which the plaster is applied must be firm, clean, and dry, without poorly bound parts, greasy stains, etc. Lime, cement, cement-lime mortars (at least one month old), final layers of thermal insulation systems (at least 7 days old), concrete surfaces (at one month old), etc. are all appropriate surfaces. Before applying, the surface must be coated with the BK-Grund Silicat surface in the same color of the plaster. The primer must be left to dry before applying plaster for at least 12 hours.

Much care should be given to preparing the surface because any irregularities in the form of uneven surfaces make any corrections of the plaster more difficult.

7. PREPARATION AND APPLICATION

Before use, the plaster must be stirred well using a hand-held electric blender. As needed, dilute using a small amount of water up to 1 % (250 ml/25 kg) with the objective of adjusting the plaster consistency. Subsequent mortar corrections during application (diluting additionally, adding pigments and the like) are not allowed.

Before installation, the shade must be checked and then combine 4-5 buckets in an appropriate vat so as to remove any possible differences between individual buckets. Once a fourth of the mixture is used, the contents of the next bucket of plaster must be added and stirred into the mixture. Proceed with the said procedure until all the material is used.

The plaster shall be applied manually using a stainless metal trowel. Its thickness must be the one of the roughest grain.

Several minutes after applying, adjust the plaster using a hard plastic trowel. When it comes to the BK-Sil Si&Si troweled structure, application may be done using circular, vertical, or horizontal motions until the surface is completely flat. Adjusting the full structure using BK-Sil Si&Si Ful is performed using circular motions.

Work must be even and without interruptions in continuous wall surfaces so as to avoid any irregularities created due to the adhesion of surfaces, irregular drying, etc.

Air and plaster temperature during installation should be in the +15 °C to +30 °C range. Do not work under direct sunlight, wind, or rain. Air and surface temperature during application should be within the range from +5 °C to +30 °C. After 6 hours of drying in normal conditions (T=+23-25 °C, relative humidity = 50-60 %), the mortar is dry when touched. Resistance to precipitation is achieved after at least 24 h of drying in normal conditions. High humidity and low temperatures may significantly extend the time it takes for the plaster to bind. These factors may also lead to uneven colors appearing when the plaster is colored.

When applying the BK-Sil Si&Si it is necessary to protect the surfaces using safety curtains, regardless of weather, in order to ensure the coating to dry off evenly and to prevent the appearance of stains.

8. MAINTENANCE

BK-Sil Si&Si plaster does not require any particular maintenance. It is recommended that the surface is occasionally dusted off. Any possible impurities may be removed using warm water and a universal house cleaning supply (laundry detergent/dish soap). After that, rinse using a stream of water. Silicate plaster, due to their high pH value, are extremely resistant to microorganisms. As a preventative measure however, you must abide by the recommendations dealing with regular facade maintenance.

If stains or impurities still exist, re-painting the facade surface is possible. This may be done using the BK-Fas Silicat or BK-Micro Fas Silicat.

Regular maintenance of facade surfaces also reduces the risk of appearance of algae and fungi. Appearance of microorganisms is characteristic of thermal insulation systems. This mainly happens on objects close to trees, rivers, lakes, in areas with frequent periods of fog and higher humidity, in valleys, etc. Objects which are in direct contact with soil saturated with moisture or dries slower, objects with shorter roofs, all objects where works around openings were poorly done, etc. are all at risk. Western and northern sides of the object are the ones under most stress.

Some measures of suppressing/reducing the risk of microorganisms developing are cleaning the facade surfaces on a regular basis, removing surface waters around the object, cleaning the snow, controlling drainage around the object, cleaning gutters, etc. Remediation of infected surfaces is not only performed on surfaces where microorganisms are visible; the entire wall is treated. Treatment should be performed according to the instructions listed in the Technical Data Sheet for BK-Sani Cid. Upon the removal of microorganisms, treated surfaces must be painted over using facade paint with the addition of a biocidal product for the protection of dry film. Regardless of the adequate function of the biocidal product, there is no guarantee that the microorganisms will not reappear after a certain period of time. Special emphasis needs to be placed on the fact that the appearance of microorganisms cannot be fully prevented; it can only be slowed

down. The effect of the biocidal product wanes off during time. Objects located in conditions which make them susceptible to the development of microorganisms must be regularly maintained and periodically painted over in the previously described manner. It is common that spiders and insects gather on the surface of thermal insulation systems. This is considered as soiling. The abovementioned regular maintenance is a preventative measure in this case, too. In the end, it is necessary to point out that the appearance of microorganisms, spiders, insects, etc. on facades is purely an aesthetic problem, not a functional one. As such, it may not serve as a basis of claims regarding the quality of the thermal insulation system.

9. CLEANING THE TOOLS

All tools must be thoroughly washed using water immediately after use. If the tools are not washed immediately after use, remove the hardened residue mechanically. Removal may be easier if the tools are submerged in water over a period of several hours.

10. HANDLING AND STORAGE

No special caution during use is needed when using the product properly. Keep out of reach of children.

Store at temperatures between +5 ° C and +25 ° C, protected from direct sunlight and frost.

Shelf life: 12 months.

11. PERSONAL PROTECTION

Respiratory tract protection: Not needed when the rooms are well aerated.

Hands and body protection: When the skin is repeatedly exposed to the mass, a preventative use of protection gloves is recommended. Use long-sleeve work overalls.

Eye protection: Use safety goggles as a preventative measure.

12. ECOTOXICOLOGICAL INFORMATION

Based on experiences and information currently available, no negative health effects are known when the product is used appropriately. Prevent uncontrolled discharge into sewage and waterways.

13. STORAGE

In accordance with local/regional/European/national regulations.

14. OTHER INFORMATION

The color chart was printed on paper. While applying the product onto various surfaces, certain smaller deviations from the color chart may be expected. These deviations are not subject to claims. Certain deviations of the plaster shade in relation to the appropriate shade in the color chart are possible due to the use of natural mineral fillers. The uneven character of color shading of plaster installed may be the consequence of inappropriate

conditions at installation, less time spent on making the surface uniform, differences in absorption, and the roughness of the base.

All plaster for a single object must be ordered at one time. If plaster is from different batches is being used on a single facade surface, the surface must be made uniform so as to avoid any uneven surfaces.

Banja Komerc Bekament DOO does not guarantee a complete match of plaster from various batches. Deviations in terms of tone are not subject to claims.

If the contractor notices an aesthetic or application deficiency while using the plaster, he is obliged to cease the works and notify the manufacturer of this. The manufacturer will consider the claim in the shortest possible time frame. Complaints to the manufacturer regarding the aesthetic characteristics upon using a significant portion or the entire amount of the materials are not subject to claims.

While choosing the shade to be installed into the thermal insulation system, we recommend shades with luminous intensity Y above 30. Plasters of intense colors are less resistant to wash out due to rainfall. They are also less likely to maintain their color consistency over extended period of time. Changes in facade surfaces which occur due to external factors cannot be the object of claims.

15. NOTE

Banja Komerc Bekament DOO performs product quality checks using its own laboratories. It also regularly tests its products in certified laboratories. The Data Sheet is the product of our knowledge and previous practical experience. The purpose of the Data Sheet is to serve as a recommendation in order to achieve the best possible results. If weather and other conditions are different than those described in our instructions, our instructions need to be taken as general guidelines, without an installation warranty.

Banja Komerc Bekament DOO assumes no liability for damages resulting from the improper use or incorrect product selection, as well as for poorly executed work. It is assumed that the contractor has mastered the techniques of installing and use of various products.

Matters written herein bind us in no way.

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Amended chapters: 3, 13.