

TECHNICAL SHEET 08.05.20-EN



JUBIZOL Aerogel finish S 1,5 mm

Refined reinforced silicone render finish

1. Description, Application

JUBIZOL Aerogel finish S 1,5 mm are intended for preparation of final coat in JUB's façade systems. They are based on combination of silicone and other polymeric binders and they have a characteristic equally grained surface. They are refined with aerogel and fillers made of foam glass which contribute to thermal insulation properties. Combination of basalt and carbon fibres give them exceptional elasticity and strength at the same time. Renders are extremely efficacious and easy to apply. They are intended for decorative protection of façade wall surfaces of modern buildings without or with minimum roof eaves. They adhere well to all finely coarse construction substrates: conventional fine lime-cement and cement render finishes, smoothed concrete surfaces, as well as to fibre-cement and gypsum-cardboard panels, chipboards, etc. In addition to high strength, they are also characterized by high water-vapour permeability. Silicone binder ensures render finishes long-term high water repellence; for this reason dust, soot and other filth adhere poorly to render finish. Good resistance to the effects of smoke, ultraviolet rays and other atmospheric factors ensures it solid resistance in any climate conditions, including façade surfaces of tall buildings exposed to heavy rainfall with minimum eaves. Treated surfaces have an assured long-term resistance to contamination with wall algae and mould. Therefore, it is not necessary to add any biocidal substances prior to application.

2. Colour Shades

- White (colour shade 1001)
- Colour shades marked with * from the JUB FAVORITE FEELINGS color chart – colour shades ending in A, B, C, D, E and F (on JUMIX tinting stations at points of sale!)

Delivery of render finishes in shades designed on special request of the customer is possible under certain conditions.

3. Technical data

Packaging	25 kg
Density	~1.82 kg/dm ³

Water dilution		1 dL/bucket
Layer thickness		~1,5 mm
Drying time T = +20 °C, relative air humidity = 65 %	Touch dry	~6 h
Average consumption		~2.3 kg/m ²
Vapor permeability EN ISO 7783-2	coefficient μ	<60
	value Sd (d = 1,5 mm)	<0.09 m class 1
Water absorption w ₂₄ (EN 1062-3)		<0.02 kg/m ² *h _{0,5}
Water absorption class		W3
Adhesion according to EAD 040083-00-0404, point 2.2.20.2		>0.3 MPa

4. Installation Conditions

Temperature of air and wall surface should not be lower than +5 °C or higher than +30 °C, and relative air humidity should be <80 %. Façade surfaces should be protected from the sun, wind and precipitation by using curtains, and despite this protection, the rendering should not be done during rain, fog or strong wind (≥ 30 km/h).

5. Surface Preparation

The surface should be slightly rough (ideal is the roughness of a conventionally smoothed fine render of 1.0 mm granulation), solid (compressive strength of at least 1.5 MPa – CS II according to EN 998-1), dry and clean, without weakly-adhered particles, dust, easy water-soluble salts, oil stains and other filth. Potential smaller uneven parts – protrusions and indentations – hinder the smoothing of the applied render finish; therefore, it is important to attend to the preparation of the surface.

Prior to the application of the decorative render finish, the newly applied base coats have to dry at least 7 to 10 days for each cm of their thickness. Decorative render finishes are applied to new concrete surfaces only a month after concreting (stated drying times of the surface are valid in normal conditions: T = +20 °C, relative air humidity = 65 %). Remove all coatings, slurries and other decorative coats from old solid renders. After the surface had been cleaned, dust it thoroughly by washing and, if necessary, repair and level it. Washing the surface with a high-pressure water blaster (hot water or steam) is especially recommended in the case of fibre-cement boards and all concrete surfaces since it removes panel oil from new surfaces, and soot, moss, lichen, remains of old coatings and similar from old ones.

The base is coated with JUBIZOL Unigrund primer, chosen in a shade as close as possible to the color of the render.

The application of a render finish should start only when a primer is dried through. In normal conditions (T = +20 °C, relative air humidity = 65 %), at least 12 hours after application of base coat.

For technical information on these primers, please read the technical data sheet.

6. Preparation of Render Finish for Application

Prior to application, stir the render finish with an electric mixer, and, if necessary (only exceptionally), dilute it with water (maximum 1 dl per container). The colour shade must be checked; then, equalize the render finish in order to remove even the slightest or imperceptible differences in colour shade between individual buckets. Stir the content of four buckets well in a large container of appropriate size. When a quarter of the so prepared compound is used, the content of the next bucket is poured into the container and mixed properly with the rest of the render finish, etc. Equalisation of white renders, which belong to the same production batch or to the same production date and which have not been diluted, is not necessary.

Reworking the render finish during application (adding tinting agents, diluting, and similar) is not allowed.

7. Application of Render Finish

Apply the mortar compound manually with a stainless-steel smoothing trowel or spray it in the thickness slightly

above the diameter of the thickest sand grain. When applying the render finish by spraying, follow instructions of the producer of the mechanical equipment. Immediately after the application smooth the surface with a solid plastic smoothing trowel. Smoothing should be performed by circular strokes until an evenly grained structure is achieved. Grains in the applied mortar coat should move as little as possible during smoothing, pushing of the mortar compound in the form of a wave in front of the trowel is not allowed. In most cases, the creation of such a wave can be attributed to over-thickness of the application or to the surface not being prepared well or it being uneven. At the end – a few minutes after trowelling - push the protruding lumps into the surface by smoothing the surface slightly using a clean stainless-steel smoothing trowel. Perform the application as fast as possible, without any interruptions from one corner of the wall to the other. When applying the render finish onto wall surfaces higher than one floor, it must be applied simultaneously to all floors: in such cases, always begin the application at the top floor, while performing a phase-delayed “step shift” in lower floors. Larger wall surfaces should be divided into smaller sections by using adequately wide decorative grooves, mortar trims, and other decorations, frames or in any other way. In this manner we avoid potential problems caused by continuous application of the render finish as well as non-aesthetic appearance due to a potentially uneven surface. Joints between planes in inner or outer corners can be made easier by preparing a few cm wide, finely smoothed stripes, which also give a pleasant decorative appearance to processed surfaces. Decorative smoothed stripes, grooves, mortar trims, frames, and similar are usually made prior to the application of the decorative render finish. They are protected by suitable wall paints, while paying attention not to apply coatings encroaching onto surfaces prepared for the application of the render finish.

In normal conditions ($T = +20\text{ }^{\circ}\text{C}$, relative air humidity = 65 %), resistance of freshly processed surfaces to damage caused by precipitation (washing away of the application) is achieved in 24 hours at the latest. Thoroughly clean the tools with water immediately after use. Dried stains cannot be removed.

8. Maintenance and Restoration of Treated Surfaces

Façade surfaces processed with JUBIZOL Aerogel finish S 1,5 mm do not require any special maintenance. The non-adhering dust and other non-adhering filth can be swept, hoovered or washed away with water. Adhering dust and more obstinate stains can be removed by light rubbing with a soft brush soaked into a solution of usual universal household preparations and washed away by clean water.

However, on surfaces where filth and stains cannot be removed applying the methods described above, renovation painting is recommended. In such cases, apply two coats of the micro-reinforced façade paint SILICONECOLOR, micro-reinforced façade paint REVITALCOLOR onto a prior coat of an appropriate primer.

9. Storage, Transportation Conditions and Durability

Storage and transportation at temperatures between $+5\text{ }^{\circ}\text{C}$ and $+25\text{ }^{\circ}\text{C}$, protected from direct sunlight, out of the reach of children, **MUST NOT FREEZE!**

Shelf life when stored in originally sealed and undamaged packaging: at least 12 months.

10. Other Information

The technical instructions in this brochure are given based on our experiences and are given as a guideline for achieving optimal results. We cannot take any responsibility for the damage, caused by incorrect selection of a product, incorrect use or unprofessional work.

Safety measures: Follow the instructions on the safety data sheet of the product.

The colour shade may differ from the print in the colour chart or from the approved sample. However, the total colour difference ΔE_{2000} for colour shades from the JUB's FAVOURITE FEELINGS colour chart – it is determined in accordance with the ISO 7724/1-3 and with a mathematical model CIE DE2000 – does not exceed 2.5. In order to check the colour shade, a dry application of render finish on a test surface is compared to a standard of the concerned shade, which is stored in the TRC JUB d.o.o. A colour shade of a render finish made on the basis of other samplers and colour charts is the best possible approximation for JUB's product bases and tinting agents. Therefore, in such cases the total colour difference from the desired shade may be even higher than the value guaranteed above. A difference in colour shade, which is the result of unsuitable working conditions, of a product preparation technique, which differs from the one in this technical sheet, of failure to follow the equalisation rules, of the application of the product onto an unsuitably prepared, overly or not enough absorbing surface, more or less coarse surface, on a wet or not dried enough surface, cannot be subject of complaint.

For External Wall Insulation (EWI) systems, we recommend render finishes with the brightness (Y) over 25. Darker render finishes and render finishes of intensive colour shades are less stable under heavy conditions of use, less resistant to being washed out by precipitation and tend to chalk more. Complaints regarding changes, which might thus occur on exposed façade surfaces, especially in the form of faster bleaching, will not be accepted. Therefore, one should consult JUB's experts for each case individually regarding conditions for the application of such renders and the maintenance of processed surfaces. The list of such susceptible colour shades is available at stores where JUMIX tinting stations are located as well as in our sales and technical information department.

This technical sheet supplements and replaces all preceding editions. We reserve the right to change and supplement data in the future.

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