

TECHNICAL SHEET 10.02.40 –GBR DECORATIVE RENDER FINISHES



JUBIZOL Nano finish S 1.5 and 2.0

Self-cleansing silicone smooth render finish

1. Description, Application

Self-cleansing silicone smooth renders JUBIZOL Nano finish S 1.5 and 2.0 are used to manufacture the final coat in the JUB facade systems. The products are based on combination of silicone and other polymeric binders and have a characteristic equally grained textured surface. They are intended for decorative protection of façade wall surfaces of modern buildings without or with minimum projecting roofs. They adhere well to all fine-coarse construction surfaces including: classical fine lime-cement and cement plasters, smoothed concrete surfaces, and also to fibre-cement and gypsum-cardboards, chipboards, and similar.

Key components made in accordance with the latest discoveries in nanotechnologies ensure these render finishes high resistance to the effects of smoke, ultraviolet rays and other atmospheric factors and, consequently, solid resistance in any climate conditions even on façade surfaces exposed to heavy rainfall. It is more difficult for dust, soot, and other filth to adhere to surfaces processed with JUBIZOL Nano finish S 1.5 or 2.0 due to high content of silicone binders and siloxane additives. Thus, dust, soot, and other filth are largely washed away by drainage water. Surfaces rendered with these finishes 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. Packaging, Colour Shades

25 kg plastic containers:

- white (shade 1001)
- Colour shades from the JUB PAINTS AND RENDERS colour chart which are marked by a * and whose code's last digit is 2, 3, 4 and 5 (on JUMIX tinting stations at points of sale!)
- Shades from the JUB FAVOURITE FEELINGS colour chart which are marked by a * and whose code's last figure is C, D, E and F (on JUMIX tinting stations at points of sale!)
- delivery of renders in shades designed at a special request of the customer is possible under certain conditions

3. Technical Data

	JUBIZOL Nano finish S 1.5	JUBIZOL Nano finish S 2.0
Density (kg/dm ³)	~1.90	~1.80
Drying time – touch dry T = +20 °C, relative air humidity = 65 % (hours)	~6	~6
Vapour permeability EN ISO 7783-2	coefficient μ (-) <60	<60



	S _d value (m)	<0.09 (for d = 1.5 mm) class V1 (vapour permeability)	<0.12 (for d = 2.0 mm) class V1 (vapour permeability)
Water absorption w ₂₄ EN 1062-3 (kg/m ² h ^{0.5})		<0.02 class W3 (low water absorptior	<0.02 class W3 (low water absorptior
Adhesion to standard lime-cement render (1 : 1 : 6) EN 24624 (MPa)		>0.30	>0.30

Main ingredients: silicone and styrene-acrylate binder, coarse and fine calcite fillers, cellulose thickening agent, titanium dioxide, water

4. Preparation of Surface

The surface should be slightly coarse (ideal is the coarseness of a classically 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 bound particles, dust, easy water-soluble salts, oil stains and other filth. Any smaller uneven parts – bulges and niches – hinder the smoothing of the applied render; therefore it is necessary to focus special attention on the preparation of the surface.

Prior to the application of a decorative render dry the newly applied base-coats for at least 7 to 10 days for each cm of its thickness. Decorative renders are applied to new concrete surfaces a month after concreting (stated times of drying of the surface are valid in normal conditions: T = +20 °C, relative air humidity = 65 %). Coatings, slurries and other decorative coats have to be removed from old solid plasters/renders. After the surface had been cleaned, it should be thoroughly freed from dust by washing and, if necessary, mended and levelled. Washing the surface with a jet of hot water or steam is especially recommended in case of fibre-cement boards and all concrete surfaces because by washing them, new surfaces are free from the remains of panel oils and the old ones from soot, moss, lichen, remains of old paints, and similar.

Suitable primers for individual types of substrates are stated in the table below:

Substrate	Primer	Consumption (depending on substrate absorption and coarseness)
fine lime-cement renders and basic renders of thermal insulating systems	JUBIZOL Unigrund (a shade closest to the colour of the render)	120 – 200 g/m ²
	SILICONECOLOR diluted with water (a shade closest to the colour of the render; SILICONECOLOR: water = 1 : 1)	90 – 100 ml/m ²
	SILICONEPrimer diluted with water (SILICONEPrimer: water = 1 : 1)	90 – 100 ml/m ²
Smooth, low-absorbing substrates (concrete, fibre-cement boards) and excessively absorbing substrates (gypsum-cardboard boards, particle boards)	JUBIZOL Unigrund (a shade closest to the colour of the render)	120 – 200 g/m ²
	VEZAKRILPrimer	~300 ml/m ²

Apply the primer with a paint or masonry brush, while JUBIZOL Unigrund, SILICONECOLOR and SILICONE Primer can also be applied with a long-fibre fur or textile paint roller; the last two can also be sprayed. 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 %), the drying time for JUBIZOL UNIGRUND is at least 12 hours, for VEZAKRILPrimer at least 24 hours, and for SILICONECOLOR or SILICONEPrimer from 4 to 6 hours.



5. Preparation of Render Compound 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.

Any “repairs” of the render finish during application (adding tinting agents, diluting, and similar) are not allowed.

6. Render Finish Application

The render finish is applied manually – using a stainless steel smoothing trowel – or by spraying – in the thickness equal to the diameter of the thickest sand grain. When the render finish is applied by spraying, follow the instructions of the producer of the mechanical equipment. Immediately after the application, smooth the surface with a solid plastic finishing trowel. Perform the smoothing by circular strokes until we reach equally grained structure. 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 smoothing – push 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.

The application of a decorative render finish is possible only in suitable weather or microclimate conditions: the temperature of the air and the wall surface should be between +5°C and +30°C and the relative air humidity should be below 80 %. Protect façade surfaces from sun, wind and rainfall with protective scaffold nettings; however, do not conduct any work in rain, fog or strong wind (≥ 30 km/h) despite such protection.

In normal conditions ($T = +20^{\circ}\text{C}$, 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.

Approximate or average consumption:

JUBIZOL Nano finish S 1.5	~2.4 kg/m ²
JUBIZOL Nano finish S 2.0	~3.0 kg/m ²

Thoroughly clean the tools with water immediately after use. Dried stains cannot be removed.

7. Safety and health at Work

Further instructions regarding handling the product, use of personal protection equipment, waste management, tool cleaning, first aid measures, warning signs, signal words, components determining hazard, hazard statements and safety statements are listed in the product’s safety sheet which you can find on Jub’s web page or you can require it from the manufacturer or seller. When applying the product, the instructions and regulations regarding safety for construction, façade and painting works should also be observed.



8. Maintenance and Restoration of Painted Surfaces

Façade surfaces processed with JUBIZOL Nano finish S 1.5 or 2.0 do not require any special maintenance. The non-adhering dust and other non-adhering filth can be swept, hoovered or washed away with a water blaster. 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, 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 or 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°C and +25°C, protected from direct sunlight, IT MUST NOT FREEZE!

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

10. Quality Control

The product's quality characteristics are determined with the internal manufacturing specifications as well as with the Slovenian, European and other standards. We constantly monitor the declared or set quality level in our own labs, at the Construction Institute in Ljubljana and occasionally also at other independent institutions at home and abroad. The quality level is also ensured by the ISO 9001 system for total quality management and control, which has been implemented at JUB for many years. During the manufacturing process, we strictly comply with the Slovenian and European standards for protection of the environment and for ensuring security and health at work, which is confirmed by the ISO 14001, ISO 50001 and ISO 45001 certificates.

The adequacy of JUBIZOL Nano finish S 1.5 and 2.0 for final coats in the JUB's façade ETICS system has been approved by the European Technical Approval (ETA). In accordance with the EAD 040083-00-0404 January 2019 guidelines, testing was performed at the ZAG Construction Institute in Ljubljana.

11. 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.

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 shades from the JUB's PAINTS AND RENDERS colour chart or ALL THE SHADES OF YOUR FAVOURITE FEELINGS – 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 approach 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. In more demanding exploitation conditions, JUBIZOL Nano finish S 1.5 and 2.0 render finishes of darker colour shades are more inclined to chalking and less resistant to washing out with precipitation, while their photocatalytic characteristics are also worse. We shall not accept complaints for changes, which might occur for this reason on exposed façade surfaces in particular in a form of faster paling for render finishes in colour shades with brightness (Y) below 50.



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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ISO 9001 Q-159
ISO 14001 E-034
ISO 50001 En-024
ISO 45001 H-022



The product has been manufactured in the organisation which holds the foll
ISO 9001:2015,
ISO 14001:2015, ISO 50001:2018, ISO 45001:2018

