

TECHNICAL SHEET 06.03.01-eng

FAÇADE PAINTS

JUBOSILCOLOR SILICATE (JUBOSIL FX)

Silicate façade paint

1. Description, Application

JUBOSILCOLOR SILICATE is a façade paint made on the basis of potash water glass; it complies with the DIN 18363 standard as far as its building-physical and other characteristics are concerned. It is recommended for protection of solid, fine plastered façade surfaces having no cracks or any other defects and anomalies (new – not yet carbonised – and old – already carbonised lime and lime-cement renders as equalised as possible as regards to content of lime – the most suitable are renders made of factory-produced mortar mixtures), and also for renovation painting of façade surfaces laden with silicate brick.

The paint is eminently suitable for renovation of façade surfaces of buildings of architectural heritage (buildings in old city centres, churches, castles, and similar) since it does not provide to protected surfaces a “sterile” appearance, which is not desired to appear on buildings of that kind, but is, unfortunately, typical for a majority of modern façade paints.

JUBOSILCOLOR SILICATE **binds chemically to the surface and it is distinguished by high water vapour permeability.** Paint film is resistant to effects of smoke, ultraviolet radiation, and other atmospheric factors; it is resistant in any climatic conditions.

2. Packaging, Paints

Plastic containers holding 5 litres and plastic containers holding 16 litres:

- White (shade 1001)
- 223 paints from the JUB colour chart (on JUMIX tinting stations at points of sale)
- Delivery of renders in paints designed at a special request of the customer is possible under certain conditions.

Paints of various shades can be mixed in optional ratios!

3. Technical Data

Density (kg/dm ³)		~1.52	
Content of vaporous organic substances (VOS) (g/l)		<24 The EU VOC requirement – category A/c (from 1 January 2010): <40	
Dry to recoat T = +20 °C, relative air humidity = 65 % (hours)		Touch dry	~3
		Suitable for further treatment	~6
Characteristics of dry paint film	Vapour permeability EN ISO 7783-2	μ coefficient (-)	<300
		Sd value (d = 100 μm) (m)	<0.03 class I (high water-vapour permeability)
	Water absorption w ₂₄ EN 1062-3 (kg/m ² h ^{0.5})		<0.1 class III (low water absorption)
	Grasp to standard lime-cement render (1: 1: 6) EN 24624 (MPa)		>0.5
Gloss		Matt	



Main ingredients: potash water glass + styrene-acrylate binder, fine calcite and aluminosilicate fillers, titanium dioxide, cellulose and xanthan gum thickener, water.

4. Surface Preparation

Surface should be solid, dry, and clean - without any badly-adhered particles, dust, remains of panelling oils, fat, or other dirt.

In normal conditions ($T = +20\text{ }^{\circ}\text{C}$, relative air humidity = 65 %), let the newly applied renders and levelling compounds dry or mature for at least 1 day for each mm of their thickness. In case of paint renovation, thoroughly remove from the surface all old badly-adhered paints, precoats, and other decorative coats, all of which get easily soaked in water. Washing with a jet of hot water or steam is recommended mainly for very dirty surfaces and surfaces infected with wall algae and mould. Such surfaces must be disinfected after washing.

In the event of potential mending of façade surfaces that have been damaged in any way, follow only procedures, which ensure, concerning roughness, as high a level of equalisation as possible to the mended surface.

The application of a primer is obligatory before the first as well as before renovation painting. JUB suggests SILICATEPRIMER diluted with water (SILICATEPRIMER : water = 1 : 1) or even the paint diluted with water (JUBOSILCOLOR SILICATE : water = 1 : 1). Both are applied with a paint or masonry brush, a long-bristle fur or textile paint roller, and they can also be sprayed.

In normal conditions ($T = +20\text{ }^{\circ}\text{C}$, relative air humidity = 65 %), painting may begin 12 hours after the application of a primer.

Indicative or average use (depending on absorption and roughness of the surface):

SILICATEPRIMER	90 – 100 ml/m ²
or	
JUBOSILCOLOR SILICATE	90 – 100 ml/m ²

5. Paint Preparation

Only stir the paint well before use and, if necessary, thin it with SILICATEPRIMER (maximum 10 %) in accordance with consistency corresponding to application technique and conditions.

Equalize paint needed to coat the finishing wall surface (or, better still: all surfaces, which are painted in the same paint shade) in a container of appropriate size. In case of large surfaces, where, in such a manner, it is impossible to technically ensure sufficient quantity of paint even for a one-layer application, mix paint from at least three containers in an equalisation container first. When a third of the so prepared paint is used, pour new paint into the container and stir it well together with the rest of the paint already in the container, etc. Equalisation of white paint of the same production batch, which has not been diluted, is not necessary.

Any “repairs” of the paint during application (adding tinting agents, diluting, and similar) are not allowed. The quantity of paint required to paint specific surface can be calculated or estimated from the surface and data on average consumption. In specific cases, the consumption can be determined by measuring at large enough test surface.

6. Paint Application

Paint is applied in two (exceptionally three) coats using a long-bristle fur or textile paint roller (length of hairs or threads is 18 to 20 mm; the following can be used: artificial fur or textile linings made of different synthetic threads – vestan, dralon, nylon, perlon, or polyester), or a painting brush suitable for application of dispersion wall paints.

Use a suitable bucket grid when applying the paint with a roller; the second or the third application can be applied only onto a completely dry previous coat – in normal conditions ($T = +20\text{ }^{\circ}\text{C}$, relative air humidity = 65 %) it is usually after approximately 12 hours (in case of lower temperatures and high relative air humidity drying time can be substantially extended!).

An individual wall surface is painted without interruptions from one end to the other. Without prejudice to the before stated, always treat surfaces inaccessible to a standard long-bristle paint roller (corners, gutters, narrow reveal surfaces, and similar) first using suitable brushes or smaller paint rollers adjusted to existing conditions.

Painting is possible only in suitable weather or microclimate conditions: temperature of the air and the wall surface should not be lower than $+5\text{ }^{\circ}\text{C}$ and not higher than $+35\text{ }^{\circ}\text{C}$ and relative air humidity should not be higher than 80 %. Protect façade surfaces against the sun, wind and rainfall with curtains; however, do not conduct any work in rain, fog or



strong wind (≥ 30 km/h) despite such protection.

In normal conditions ($T = +20$ °C, relative air humidity = 65 %), resistance of freshly painted surfaces to damage caused by precipitation (washing away of the application) is achieved in 24 hours at the latest.

Approximate or average consumption for a two-coat application:
180 - 210 ml/m², depending on absorption and roughness of the surface

7. Tool Cleaning, Waste Management

ATTENTION! Prior to applying silicate coats, protect window and door frames, window sills, as well as window glasses and other exposed surfaces well, since stains cannot be removed.

Clean the tools immediately after use with water.

Keep unused paint in a well sealed package for potential repairs or later use. Waste liquid remains must not be emptied into drains, watercourses, or environment and they must not be disposed together with domestic wastes. Mix them with cement (hardened mortar remains and wastes, sand or sawdust may be added to them) and when they harden, deposit them onto the dumping grounds of construction waste (waste classification number: 17 09 04) or municipal waste (waste classification number: 08 01 12).

Cleaned packaging can be recycled.

8. Safety at Work

The product contains potash water glass, which irritates eyes and skin, therefore use suitable protective means while working. In addition to general instructions and regulations on safety at works including construction and painting, as well as instructions from the safety sheet, follow also the following warnings:

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S2 Keep out of the reach of children.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of water.

S29 Do not empty into drains.

S46 If swallowed, seek medical advice immediately and show this container or label.

S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

9. Maintenance and Restoration of Painted Surfaces

Painted façade surfaces do not require any special maintenance. The non-adhering dust and other non-adhering filth can be swept, vacuumed or washed away with water. Adhering dust and more obstinate stains can be removed by light rubbing with a wet cloth or brush soaked into a solution of usual universal household preparations and washed away by clean water.

However, paint should be restored on surfaces, which cannot be cleaned of filth and stains by following the method described above. In such cases, apply two coats of paint as described in the chapter »Paint Application«. An appropriate primer is mandatory, which can be skipped only if the last painting was conducted not more than two years ago.

10. Storage, Transportation Conditions and Durability

Storage and transportation at temperature $+5$ °C to $+25$ °C, protected from the direct sunlight, out of reach of children, **MUST NOT FREEZE!**

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

11. Quality Control

The product's quality characteristics are determined with the internal manufacturing specifications as well as with the Slovenian, European and other standards. The achievement of declared or set quality level is ensured by the ISO 9001 system for total quality management and control, which has been implemented at JUB for many years. It comprises



daily quality checks in our own labs, and occasionally also at the Construction Institute in Ljubljana, at Forschungsinstitut für Pigmente und Lacke in Stuttgart and at other independent institutions at home and abroad. 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 and OHSAS 18001 certificates.

12. Other Information

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.

A paint may differ from the imprint in the colour chart or from the certified sample, and the total paint difference ΔE_{2000} for paints under the JUB colour chart - it is defined in accordance with ISO 7724/1-3 and the CIE DE2000 mathematical model - amounts to maximum 1.5. A correctly dried application of paint to the test surface and a standard of the concerned colour, which is stored at TRC JUB d.o.o., shall be decisive for control purposes. Paint manufactured by other samplers and colour charts is the best possible approximation for the JUB's primers and tinting agents. Therefore, in such cases the total colour difference from the desired shade may be even higher than the value guaranteed above. Difference in colour shade, which is a result of unsuitable working conditions, of a colour preparation technique, which differs from the one in this technical sheet, failure to follow the equalization rules, application onto an unsuitably prepared, overly or not enough absorbing surface, more or less coarse surface, on wet or not dried enough surface, cannot be subject of complaint.

For painting façade surfaces, in particular final façade thermal insulation systems, we recommend paint with brightness (Y) over 25. In more difficult exploitation conditions, darker paints and paints of intensive colour shades are less persistent, less resistant to washing out with drainage water, and more susceptible to chalking. We shall not accept complaints for changes, which might occur for this reason on façade surfaces which pale faster. Therefore, one should consult our experts for each case individually regarding conditions for application of such paints and maintenance of processed surfaces. The list of colour nuances, which could be controversial in this sense, is available at stores where JUMIX tinting stations are located as well as in our sales and technical information departments.

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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