

TECHNICAL SHEET 07.02.09-ENG

FACADE PAINTS



Nanocolor

Self-cleaning, micro-reinforced facade paint

1. Description, Application

Nanocolor is a micro-reinforced façade paint with self-cleaning effect based on water dispersion of silicone binders. It is suitable for decorative protection of all types of solid, embossed or rough and smoothed or fine rough façade surfaces (at least a month old lime-cement and cement render finishes, at least a month old unplastered concrete façade surfaces, fibre-cement and similar façade boards and similar). The paint film is additionally reinforced with thin synthetic fibres, so that it does not crack on spots of too-thick applications in furrows, channels and holes. Application is also possible to well adhered old acrylic, silicate and silicone paint coats and decorative render finishes of all types.

Key components, manufactured according to the latest results of nano technology, ensure the paint high resistance to effects of smoke, ultraviolet radiation and other atmospheric factors and consequently good stability in any climatic conditions including on façade surfaces which are extremely exposed to precipitation.

Due to high content of silicone binders, siloxane and other additives which form an extremely water repellent texture on the surface, dust, soot and other filth adhere more weakly to the surfaces processed with the Nanocolor paint and they are washed away from the surfaces exposed to rain to a large extent by precipitation. Painted surfaces remain resistant to infection with the most widespread types of wall algae and mould for a long time, therefore NANOXILCOLOR is also suitable for maintenance painting of façade surfaces infected with wall algae and mould if such surfaces are disinfected well prior to the application of the paint.

In addition to the aforementioned characteristics, the paint is also distinguished by good coverage and very good water vapour permeability.

2. Packaging and Colour Shades

Plastic containers holding 15 l:

- White (colour shade 1001)
- Colour shades marked with * from the JUB FAVOURITE FEELINGS colour chart whose code's last figures are C, D, E and F - (on JUMIX tinting stations at points of sale!)
- Delivery in colour shades designed at a special request of a customer is possible under certain conditions
- Paints of various colour shades can be mixed in optional ratios!

3. Technical Data

Density (kg/dm ³)		~1.7
Content of vaporous organic substances (VOC) (g/l)		<20 The EU VOC requirement – category A/c (as of 1 January 2010): <40
Drying time T = +20 °C, rel. air humidity = 65 %	Touch dry	~3



(hours)	Suitable for further treatment	~6
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Characteristics of a dry paint film	Vapour permeability EN ISO 7783-2	μ coefficient (-)	<500
		Sd value (d = 150 μ m) (m)	<0.08 razred I (high vapour permeability)
	Water absorption w_{24} EN 1062-3 (kg/m ² h ^{0.5})		<0.03 class III (low water absorption)
	Grasp to standard lime-cement render (1 : 1 : 6) EN 24624 (MPa)		>0.5
	Gloss		mat

Main ingredients: silicone and styrene-acrylic binder, fine calcite and aluminosilicate fillers, synthetic microfibres, titanium dioxide, cellulose 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 °C, relative air humidity = 65 %), dry or mature the newly applied render finishes and applications of levelling compounds for at least a day for each mm of their thickness. Dry concrete surfaces for at least a month. In case of paint renovation, thoroughly remove all old badly-adhered particles as well as paint coats, paints, pre-coats and other decorative coats, all of which get easily and quickly soaked in water. Washing with a jet of hot water or steam is strongly recommended mainly for very dirty surfaces, all concrete surfaces and surfaces infected with wall algae and mould. Disinfect such surfaces after washing.

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

The application of primer is mandatory, both prior to first painting as well as prior to renovation painting. We recommend water-diluted SILICONE Primer (SILICONE Primer : water = 1 : 1), water-diluted JUKOL Primer (Jukol Primer : water = 1 : 1) or simply water-diluted paint (Nanocolor: water = 1 : 1), which are applied with a paint or masonry brush, a long-fibre fur or textile paint roller (SILICONE Primer and JUKOL Primer can also be sprayed).

If the surface is hair-cracked, cover it with REVITAL Primer once or twice. Stir the paint well before use, and, if necessary, dilute it with SILICATE Primer up to 10 %. Apply the paint with a paint- or masonry brush.

In normal conditions (T = +20 °C, relative air humidity = 65 %) the painting may begin 6 and in case of REVITAL Primer or JUKOL Primer 12 hours after the application of a primer.

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

SILICONE Primer	90 – 100 ml/m ²
or	
JUKOL Primer	90 – 100 ml/m ²
or	
Nanocolor	90 – 110 ml/m ²
or	
REVITAL Primer	~300 ml/m ²



5. Preparation of Paint

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

Equalize paint needed to coat the finishing wall surface (or, even better: all surfaces, which are painted in the same colour 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 thinned, is not necessary.

Any “repairs” of the paint during painting (addition of tinting agents, thinning, and similar) are not allowed. Quantities of paints necessary to paint individual panels are calculated or estimated based on the surface of these panels and data on consumption rate, and, in specific cases, consumption is determined by making measurements on a test panel that is large enough.

6. Paint Application

Paint is applied in two (exceptionally three) coats using a long-bristle fur or textile painting roller (length of hairs or threads is 18 to 20 mm; the following can be used: natural and 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 °C, relative air humidity = 65 %) it is usually after approximately 6 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 for 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: the temperature of the air and the wall surface should not be lower than +5 °C and not higher than +35 °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 paint) is achieved in 24 hours at the latest.

Approximate or average consumption for a two-coat application:	
Nanocolor	300 – 700 ml/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

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 by water. Adhering dust and more obstinate stains can be removed by light rubbing with a wet cloth or sponge soaked into a solution of usual universal household preparations and washed away by clean water.

Restore paint on surfaces, which cannot be cleaned of filth and stains in the above described manner. Restoration painting should include a new two-layer paint application as described in the chapter entitled “Paint application”. Always apply adequate primer. It is possible to apply paint directly onto a surface only in case no more than two years have



elapsed since the last painting.

9. 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 18 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. The 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, which encompasses daily quality checks in our own labs and occasionally also at the Construction Institute in Ljubljana, at the Forschungsinstitut für Pigmente und Lacke in Stuttgart as well as at other independent expert 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.

11. 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.

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 COLOURS AND RENDERS colour chart or JUB FAVOURITE FEELINGS colour chart – it is determined in accordance with the ISO 7724/1-3 and by a mathematical model CIE DE2000 – doesn't exceed 1.5. If you wish to check the colour shade, dry the application of a render on a test surface correctly and check a standard of the concerned shade, which is stored in TRC JUB d.o.o.. Paint manufactured by other colour charts is the best possible approximation for JUB's primers and tinting agents. Therefore, in such cases the total colour difference from the desired nuance 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 of the compound 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.

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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