

TECHNICAL SHEET 08.01.01-ENG

CONCRETE PAINTS, FACADE PAINTS

TAKRIL

Acrylic Concrete Paint

1. Description, Application

TAKRIL is a dispersion paint made on the basis of polymeric binders. It is intended for **decorative protection of concrete surfaces and other surfaces bound by cement**. It complies with the EN 1504-2 requirements for products intended for protection of vertical surfaces in systems for protection and repair of concrete constructions.

It is recommended for:

- **Decorative protection of unrendered concrete façade surfaces, façade linings made of fibre-cement boards, unrendered and fine plastered plinths** of residential and other premises, surfaces of concrete supporting and pillar walls, parts of concrete fences, concrete partitions, and similar,
- **Anti-dust protection of all types of floor cement-based surfaces (cement plasters/renders and coatings, polished terrazzo, floor made of raw concrete) in less exposed rooms** (i.e. rooms, which are used less frequently: cellars of residential premises, boiler rooms of individual residential premises, storage facilities (handy, archive, and other), pantries, shelters and similar),
- Decorative protection of roofing tiles made of asbestos-cement and concrete.

It is distinguished by good adhesion to the surface, high CO₂ diffusion-resistance number and high water repellence. It covers the surface well, persists also in adverse climatic conditions and is resistant to effects of smoke, ultraviolet radiation and other atmospheric factors. Painted surfaces are resistant to short-term effect of thinned acids and lyes, and their resistance to wear and tear is relatively good.

2. Packaging and Colour Shades

Plastic containers holding 0.75 l:

- 10 paints under the CONCRETE PAINTS colour chart
- Paints of various shades can be mixed in optional ratios!

Plastic containers holding 5 litres:

- Paints (1,2 and 6) under the CONCRETE PAINTS colour chart
- 348 paints from the PAINTS AND RENDERS colour chart (on JUMIX tinting stations at points of sale)
- Tinting is also possible according to the NCS* colour chart (on JUMIX tinting stations at points of sale)
- Tinting is also possible according to the RAL CLASSIC* colour chart (on JUMIX tinting stations at points of sale)
- Paints of various shades can be mixed in optional ratios!

Plastic containers holding 16 litres:

- 10 paints under the CONCRETE PAINTS colour chart
- 348 paints from the PAINTS AND RENDERS colour chart (on JUMIX tinting stations at points of sale)
- Tinting is also possible according to the NCS* colour chart (on JUMIX tinting stations at points of sale)
- Tinting is also possible according to the RAL CLASSIC* colour chart (on JUMIX tinting stations at points of sale)
- Delivery in paints designed at a special request of a customer is possible under certain conditions
- Paints of various shades can be mixed in optional ratios!

* Due to certain limitations, number of colour shades can be lower than the total number of shades in colour charts.



3. Technical Data

Density (kg/dm ³)		~1.42	
Content of vaporous organic substances (VOC) (g/l)		<40 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	4 to 6	
	Protect against rain	~24	
	Foot traffic of painted surfaces is achieved	~24	
Characteristics of a dry paint film	Suitable strength	Ready for average loads	3 days after painting
		Ready for maximum mechanical loads	15 days after painting
	Vapour permeability EN ISO 7783-2	μ coefficient (-)	<3800
		Sd value (d = 100 μm) (m)	<0.38 class II (medium water-vapour permeability)
	Resistance to wet scrubbing EN 13300		Resistant, class 1
	CO2 diffusion-resistance number EN 1062-6	μCO ₂ coefficient (-)	1500000
		SdCO ₂ value (d = 100 mm) (m)	>150
	Water absorption w24 EN 1062-3 (kg/m ² h ^{0.5})		<0.03 class III (low water absorption)
	Adhesion to concrete EN 1542 (MPa)	Before ageing	>2.0
		After ageing EN 13687-3	>3.0
Slipperiness – friction coefficient pr EN 13552, method A	In dry	0.76	
	In wet	0.74	

Main ingredients: Acrylate binder, aluminosilicate and sulphate fillers, cellulose thickener, pigments, 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. Drying time of new concrete surfaces in normal conditions (T = +20 °C, relative air humidity = 65 %) is at least 1 month and of new cement or lime-cement renders at least 7 to 10 days for each centimetre of their thickness. 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 new concrete surfaces and surfaces infected with wall algae and mould. Disinfect such surfaces after washing. Application to well-adhered old dispersion coats is possible.

Only more than 1 month old concrete floorings are suitable for painting if their strength exceeds 1.5 MPa, if their humidity does not exceed 4 % and if they are suitably insulated against soil damp and water. Prior to painting, suitably roughen very smoothly ironed surfaces of concrete and cement coatings as well as polished terazzo surfaces by scabbling. Thus, a layer of cement milk, which extracts and hardens on the coat surface, is also removed.

Always apply a primer prior to applying the paint. It is recommended to apply AKRIL EMULSION thinned with water (AKRIL EMULSION : water = 1 : 1) or thinned paint (TAKRIL : water = 1 : 1) onto interior floor and wall surfaces and onto exterior, less exposed and smaller plinth surfaces, but as far as façade surfaces and painting of fibre-cement, concrete, and other cement roofing tiles are concerned, apply **JUKOLprimer** thinned with water (**JUKOLprimer**: water = 1 : 1). A primer is applied by a painting or masonry brush or a long-bristle fur or textile paint roller or it can be sprayed. In normal conditions (T = +20 °C, relative air humidity = 65 %) painting may begin 6 (AKRIL EMULSION or TAKRIL) or 12 (**JUKOLprimer**) hours after the application of a primer.

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

JUKOLprimer	90 – 100 ml/m ²
or	
AKRIL EMULZIJA	90 – 100 g/m ²
or	
TAKRIL	90 – 100 ml/m ²

5. Preparation of Paint

Only stir TAKRIL well prior to use and, if necessary, thin it with water (maximum 10 %) in accordance with consistency corresponding to application technique and conditions. ATTENTION! Paint coverage decreases with thinning!

Equalize paint needed to coat the finishing 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 on the basis of 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 paint 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 – polyamide, dralon, vestan, nylon, perlon or polyester), a painting brush suitable for application of dispersion wall paints or it can be sprayed.

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!).

Paint can be sprayed onto a surface using traditional high pressure and modern low pressure spray guns of different types (with “external” or “internal mixing of air”), as well as airless aggregates of a variety of manufactures. As regards to the choice of diameter of spraying nozzles and service pressure, follow producer's instructions. 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 or a spray gun (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 (depends on absorption and coarseness of surface):	
TAKRIL	180 - 200 ml/m ²

7. Tool Cleaning, Waste Management

Thoroughly clean the tools with water immediately; dried stains cannot be removed.

Keep unused paint in a well sealed package for potential repairs. Waste liquid remains (waste classification number: 08 01 12) 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

Respiratory protection with a protective mask and eye protection with protective glasses or a face shield is necessary only when paint is applied by spraying, otherwise follow general instructions and regulations on safety of construction work or works including paintwork. The use of special personal protection means and the application of special measures for safe work at paint application with a paint roller or a brush is not necessary.

In case of contact with eyes, rinse with water immediately.

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 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 a 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.

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 18 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 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 Forschungsinstitut für Pigmente und Lacke in Stuttgart, Germany as well as 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.

The colour shade may differ from the print in the colour chart or from the approved sample. However, the total colour difference ΔE_{2000} – it is determined in accordance with the ISO 7724/1-3 and by a mathematical model CIE DE2000 – doesn't exceed 1.5 for shades from the JUB's COLOURS AND RENDERS colour chart or 2.5 for nuances from the NCS and RAL colour charts. 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 the 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.

For application to façade surfaces, we recommend paint with brightness (Y) over 25. Darker paints and paints of intensives colour tones, which can be achieved only with organic pigments, are somewhat less resistant to washing out with precipitation and more inclined to chalking in more demanding exploitation conditions. 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 shades, 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.

Denomination and date of publishing: **TRC-027/13-pek**, 6 February 2013

JUB kemična industrija d.o.o.

Dol pri Ljubljani 28, 1262 Dol pri Ljubljani, Slovenia
 T: (01) 588 41 00 h.c.
 (01) 588 42 17 Sales
 (01) 588 42 18 or 080 15 56 Technical support
 F: (01) 588 42 50 Sales
 E: jub.info@jub.si
www.jub.eu



The product is made by the holder of ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certificates.



