

TECHNICAL SHEET 20.09.01 - ENG
 DECORATIVE PROTECTION OF METAL

JUBIN METAL

Anti-corrosive metal paint

1. Description, Application

JUBIN METAL is a paint based on water dispersion of acrylic binders and **used for anti-corrosive and decorative protection of constructions and other elements made of steel and iron on the inside and the outside of structures, e.g. steel load-bearing and other constructions, building furniture, fences, decorative elements, housings and other parts of machines, and similar.**

It is not necessary to clean the surface to metal shine – shot blasting – or remove corrosive products with chemical preparations prior to painting. It suffices to remove the non-adhered rust with a wire brush or sand paper and to degrease the surface. JUBIN METAL incorporates inhibitors, which successfully prevent and inhibit corrosion of steel and iron, and ensure protection to painted surfaces, which is of equal quality as the equally thick “combination” of conventional solution-based anti-corrosive primers and solution-based decorative varnishes, therefore, **there is no need to apply the anti-corrosive primer. It is not allowed to use basic or acidic products (Ferrosan, lye and similar).**

JUBIN METAL is also suitable for decorative protection of zinc-coated surfaces, before painting copper elements and elements made of copper alloys, while the use of suitable primers is necessary before painting the elements made of aluminium and aluminium alloys. As far as sustainable characteristics are concerned, Jubin Metal meets the requirements of coat systems for corrosive categories C2H, C3L under EN ISO 12944/6:1998 standard, and shade 1001 also category C3M!!!

2. Packaging and Colour Shades

Plastic pots holding 0.65 and 2.25 l

- White (shade 1001), silver (shade 5005), graphite (shade 5004),
- 348 shades from the PAINTS AND RENDERS colour chart (on JUMIX tinting stations at points of sale!)
- 187 shades from the RAL colour chart (on JUMIX tinting stations at points of sale!)
- 28 shades from the JUBIN METAL colour chart – shades providing “metallic” appearance (on JUMIX tinting stations at points of sale!)

Plastic pots holding 0.65 l:

- Green (shade 6), dark brown (shade 8), black (shade 9)

Paints of various shades can be mixed in optional ratios!

3. Technical Data

Density (kg/dm ³)		~1.28 ~1.40 (colour shades with »metallic effect«)
Content of vaporous organic substances (VOS) (g/l)		<60 The EU VOS requirement – category A/d (as of 1 January 2010): <130
Drying time T = +20 °C, relative air humidity = 65 % (hours)	Touch dry	~2
	Suitable for further treatment	~6

Main ingredients: acrylate binder, calcite and magnesium-silicate fillers, titanium dioxide, associative thickening agent, corrosion inhibitors, water. The coating reaches its final physical and chemical characteristics after a month.

4. Surface Preparation

The surface should be dry and clean, without dust and other loose or badly-adhered particles. Remove corrosion products from the surface with a wire brush or sandpaper, while shot blasting till metal shine is achieved or chemical removal of corrosion products are not necessary. Remove old and badly-adhered paint coats, but if they adhere to the surface well, only rub them with a solid wire brush or sand them finely (sandpaper No. 180 or 220).

Thoroughly degrease the cleaned surfaces. Use a nitro or any other diluter or any of special degreasing agents.

5. Paint Preparation

Prior to application, only stir JUBIN METAL well and dilute it with water up to 5% if necessary. If the paint is applied by spraying (in conditions of accelerated drying and also in other cases), dilute it more, but not more than 10%. ATTENTION! Paint coverage decreases rapidly with diluting!

Equalise paints of different production batches or different manufacturing dates, which are needed to cover finishing surface, in a large container. In the case of large surfaces, where, in such a manner, it is impossible to technically ensure sufficient quantity of paint even for a one-coat application, mix paint from at least three pots in an equalisation container first. When a third of the so prepared paint is used, pour new paint into the equalisation container and stir well together with the rest of the paint already in the container, etc. Equalisation of paint of industrially prepared shades 2, 6, 8, 1001, 5004 and 5005, which belong to the same production batch or to the same production date and which have not been diluted, is not necessary.

6. Paint Application

Apply JUBIN METAL in three or also more coats onto a dry and clean surface with a brush, a fine foam painting roller (the "flock" roller) or spray it. Due to quick drying, application in stripes without interruptions is recommended. Smear any drops immediately so that they do not dry. A wet application of paint in the graphite shade (shade 5004) has a purple-blue touch, which disappears during the drying phase.

Any "repairs" of the paint during painting (adding of tinting agents, diluting and similar) are not allowed. Quantities of paints necessary to paint individual surfaces are calculated or estimated on the basis of the surface of these surfaces and data on consumption rate, and, in specific cases, consumption is determined by making measurements on a test surface that is large enough.

Painting is possible only in suitable weather or microclimate conditions: the air temperature should not be lower than +5°C and not higher than +30°C (the optimum air temperature is +10 °C to +25 °C), and the relative air humidity should be below 80 %. The temperature of the surface should be higher than the temperature of dew point, but it should by no means be lower than +5 °C. In case of outdoor work, protect surfaces during painting and hardening of the paint film against strong sun and winds. However, do not conduct any work in rain, fog or strong wind (≥ 30 km/h) despite such protection!

INFORMATIVNA TABELA S TEMPERATURAMI ROSISCA

		RH – RELATIVNA VLAŽNOST ZRAKA															
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
T°C - TEMPERATURA ZRAKA	5	-32	-24	-19	-16	-13	-11	-9	-7	-6	-5	-3	-2	-1	0	1	2
	6	-31	-23	-19	-15	-13	-10	-8	-7	-5	-4	-2	-1	0	1	2	3
	7	-30	-23	-18	-14	-12	-9	-7	-6	-4	-3	-1	0	1	2	3	4
	8	-29	-22	-17	-14	-11	-9	-7	-5	-3	-2	0	1	2	3	4	5
	9	-29	-21	-16	-13	-10	-8	-6	-4	-2	-1	0	2	3	4	5	6
	10	-28	-20	-15	-12	-9	-7	-5	-3	-1	0	1	3	4	5	6	7
	11	-27	-19	-15	-11	-8	-6	-4	-2	0	1	2	4	5	6	7	8
	12	-26	-19	-14	-10	-7	-5	-3	-1	0	2	3	4	6	7	8	9
	13	-26	-18	-13	-9	-7	-4	-2	0	1	3	4	5	7	8	9	10
	14	-25	-17	-12	-9	-6	-3	-1	1	2	4	5	6	8	9	10	11
	15	-24	-16	-11	-8	-5	-2	0	2	3	5	6	7	8	10	11	12
	16	-24	-16	-11	-7	-4	-2	1	2	4	6	7	8	9	11	12	13
	17	-23	-15	-10	-6	-3	-1	1	3	5	6	8	9	10	11	13	14
	18	-22	-14	-9	-5	-2	0	2	4	6	7	9	10	11	12	13	14
	19	-21	-13	-8	-4	-1	1	3	5	7	8	10	11	12	13	14	15

20	-21	-13	-7	-4	-1	2	4	6	8	9	11	12	13	14	15	16
21	-20	-12	-7	-3	0	3	5	7	9	10	12	13	14	15	16	17
22	-19	-11	-6	-2	1	4	6	8	10	11	13	14	15	16	17	18
23	-19	-10	-5	-1	2	4	7	9	10	12	13	15	16	17	18	19
24	-18	-9	-4	0	3	5	8	10	11	13	14	16	17	18	19	20
25	-17	-9	-3	0	4	6	8	10	12	14	15	17	18	19	20	21
26	-17	-8	-3	1	4	7	9	11	13	15	16	18	19	20	21	22
27	-16	-7	-2	2	5	8	10	12	14	16	17	19	20	21	22	23
28	-15	-6	-1	3	6	9	11	13	15	17	18	19	21	22	23	24
29	-14	-6	0	4	7	10	12	14	16	18	19	20	22	23	24	25
30	-14	-5	1	5	8	11	13	15	17	18	20	21	23	24	25	26

Primer uporabe tabele:

Pri temperaturi zraka 20°C in relativni vlažnosti zraka 60 % bo temperatura rosišča 12°C. Tej temperaturi prištejemo +3°C in dobimo temperaturo podlage, ki mora biti vsaj 15°C.

Approximate or average consumption for a one-coat application:

JUBIN METAL 70 - 80 ml/m², depending on roughness of the surface

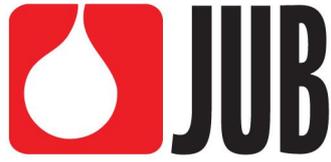
PREVOD TABELE ZGORAJ:

INFORMATIVE TABLE INCLUDING DEW POINT TEMPERATURES

RH - RELATIVE AIR HUMIDITY

T°C - AIR TEMPERATURE

Example of how to use the table:



Ustvarjamo barvito ugodje bivanja

at air temperature of 20°C and relative air humidity of 60 %, the dew point temperature will be 12°C. Add + 3°C to this temperature and you will get surface temperature, which should exceed 15°C.

7. Tool Cleaning, Waste Management

Clean the tools with water immediately after use. Using a spatula, empty the cylinder, and wash the tool immediately and thoroughly with water. Keep unused and undiluted paint in a well sealed package for potential repairs or later use.

Do not empty waste remains into drains, watercourses or environment and do not dispose them together with domestic wastes. In accordance with waste management regulations, they are classified among waste bearing classification number 08 01 12 or 20 01 28 and may be handed in to registered transferees in empty packaging or at assembly centres for waste of this kind or via organised collection of hazardous waste by municipal companies. Do not empty waste remains into drains, watercourses or environment and do not dispose them together with domestic wastes.

8. Safety at Work and First Aid Measures

Follow general instructions and regulations for construction or painting works. Respiratory protection with a protective mask and eye protection with protective glasses or a face shield is necessary only when the paint is applied by spraying.

FIRST AID:

Contact with eyes: immediately widen the eyelids, rinse thoroughly with clean water (10 to 15 minutes), seek medical advice if necessary. Contact with skin: remove clothing, which has been wetted, and rinse the skin with water and soap; at recurrent contact with the skin, preventive protection of hands with a protective cream is recommended. Ingestion: rinse your mouth with water immediately, do not enforce vomiting, seek medical attention immediately.

Warning signs on the packaging	<p style="text-align: center;">Xi</p>  <p style="text-align: center;">IRRITANT!</p> <p style="text-align: center;">IT CONTAINS 4-METHYL-G-OXO-BENZYL BUTANE ACID!</p>
Special measures, warnings and observations for safe work	<p>R 36 – Irritating to eyes. R52/53 - Harmful to aquatic organisms: may cause long-term adverse effects in the aquatic environment.</p> <p>S 2 Keep out of the reach of children. S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 28 After contact with skin, wash immediately with plenty of water. S 29 Do not empty into drains. S 46 If swallowed, seek medical advice immediately and show this container or label. S 60 This material and its container must be disposed of as hazardous waste. S 61 Avoid release to the environment. Refer to special instructions/safety data sheet. Follow special guidance – safety data sheet.</p>

9. Maintenance and Restoration of Painted Surfaces

Painted surfaces do not require any special maintenance. Loose dust and other loose filth can be swept or hoovered, while adhered dust and other filth can be removed with a soft cloth or sponge soaked in a solution of conventional universal household preparations.

However, where filth and stains cannot be removed, perform paint renovation. It should include a new, at least two-layer paint application, as described in the chapter entitled "Paint application".

10. Storage, Transport Conditions and Durability

Storage and transport at temperature +5 °C to +25 °C, keep out of direct sunlight, out of reach of children, IT MUST NOT

FREEZE!

Shelf life when stored in an originally sealed and undamaged packaging: at least 18 months.

11. Quality Control

The product's quality characteristics are determined by the internal manufacturing specifications as well as by the Slovene, European and other standards. JUB ensures achieving of the declared or set quality level by the ISO 9001 system for total quality management and control, which has been implemented at JUB for many years and which comprises daily quality checks in our own laboratories, occasionally at the ZAG Construction Institute in Ljubljana and other independent expert institutions in Slovenia and abroad. During the manufacturing process, JUB strictly complies with the Slovene and European standards for the protection of the environment and for ensuring security and health at work, which has been confirmed by the ISO 14001 and OHSAS 18001 certificates.

12. Other Information

Technical instructions contained in this brochure are provided on the basis of JUB's experience and are given as a guideline to achieve the optimum results. JUB cannot accept any responsibility for damage caused by incorrect selection of a product, incorrect use or unprofessional work.

A 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 772471-3 and with the mathematical model CIE DE2000 – does not exceed 1.5 in the case of shades from the JUB PAINTS AND RENDERS colour chart or 2.5 in the case of shades from the NCS and RAL colour charts. In order to check the colour shade, a dry application of the paint on a standard test cardboard is compared to a standard of the concerned shade, which is stored in the TRC JUB d.o.o. Paint made on the basis of the JUBIN METAL colour chart and other 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 paint, which is a result of inadequate working conditions, of paint preparation, which does not follow instructions from this technical sheet, of non-compliance with equalisation rules, and of application of the paint onto inadequately prepared surface cannot be subject of complaint.

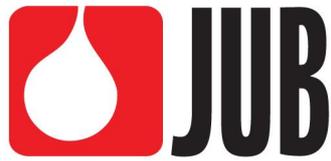
This technical sheet supplements and replaces all preceding editions. JUB reserves the right to change and supplement data in the future.

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