

## TECHNICAL SHEET 14.04.04-EN



# JUBIN Metal

## Anti-corrosion topcoat for metal

### 1. Description, Application

JUBIN Metal is an anti-corrosion paint based on water dispersion of acrylic binders to protect non-demanding and non complex buildings made of steel, iron, copper, zinc and aluminium, e.g. joinery, fences, gutters, radiators and radiator tubes (temperatures up to 60°C), machinery housings, roofing constructions and similar. The product is suitable for both exterior and interior surfaces. Before painting the galvanized surfaces, copper elements and elements from copper alloys and before painting the elements of aluminium and aluminium alloys, the use of anti-corrosion primer JUBIN Metal primer (WB) is obligatory. JUBIN Metal does not turn yellow, dries quickly and has no unpleasant odour. Simply clean the tools with water after use. The product is not suitable for the protection of roofing and walked-on surfaces. It is recommended that the horizontal surfaces be implemented with at least a minimum pitch (2 %) to enable the draining of meteoric water. At places where meteoric water will stagnate, the coating will need to be restored more often. Sharp edges are sanded before installing the product (the minimum radius of rounding is 1.0 mm). Metal welds must be completely filled to prevent water leakage resulting from condensation inside the pipes, profiles. We do not recommend the use of JUBIN Metal in aggressive industrial environments and in high-salinity coastal areas.

Description		Primer	Decorative coat
First painting or Paint renovation (old coatings are cracked and do not adhere to the surface – prior to painting, remove them partially or completely)	Elements made of steel or iron in the exterior	2 x JUBIN Metal primer (WB)	2 x JUBIN Metal
	Elements made of steel or iron in the exterior, which are protected from rain with eaves or roofs	/	4 x JUBIN Metal
	Elements made of copper, zinc or aluminium in the exterior or interior of construction facilities	1 x JUBIN Metal primer (WB)	2 x JUBIN Metal

	Elements made of steel or iron in the interior of construction facilities	/	3 x JUBIN Metal
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## 2. Colour Shades

- White (colour shade 1001), silver (colour shade 5005), graphite (colour shade 5004),
- 348 shades from the FAVOURITE FEELINGS 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 – colour shades providing “metallic” appearance (on JUMIX tinting stations at points of sale!)
- Green (colour shade 6), dark brown (colour shade 8), black (colour shade 9)

Paints of various shades can be mixed in optional ratios!

## 3. Technical data

Packaging	0.65 l, 2.25 l	
Density	~1.254 kg/dm <sup>3</sup>	
Content of vaporous substance (VOC)	60 g/l	
The EU VOC requirement - category	A/d<130	
Water dilution mass	0 %	
Water dilution for spraying	~10 %	
Drying time	Touch dry	~2 h
T = +20 °C, relative air humidity = 65 %	Suitable for further treatment	~6 h
Consumption	~80 - 100 ml/m <sup>2</sup> (for a one-coat application)	
Recommended number of layers	2-3	

## 4. Installation Conditions

The air temperature should not be lower than +5°C and not higher than +25 (the optimum air temperature is +10 °C to +25 °C), and the relative air humidity should not exceed 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!

See the information table with dew point temperatures on the last page of the technical sheet!

## 5. Surface Preparation

Iron or steel substrates:

Corrosion products can be removed mechanically (either manually or mechanically) by using a wire brush or sanding paper P-080, P-100 or P-120, or by sandblasting. Before degreasing, the sanded rust must be dedusted (mechanically with compressed air units or manually with a brush or duster). Particular attention should be paid to the deep craters resulting from prolonged rust. Fats and other impurities are removed with alcohol, acetone, nitro solvent or some other special degreasing agent. For heavily greasy surfaces, repeat the degreasing process several times. After degreasing, wipe all surfaces with a dry cotton cloth (there must be no impurities on the cloth after wiping).

The substrate must be dry and clean prior to the application of anti-corrosion paint, without dust or any other loose or poorly adhered particles.

Special notes:

If rust is removed with chemicals based on acid (phosphoric), the surface must be thoroughly washed with water,

dried and only then anti-corrosion primer, either JUBIN Metal primer (WB) or JUBIN Metal, should be applied.

Copper, aluminium or galvanized sheet metal substrates:

Prior to the application of JUBIN Metal, they must be protected with an anti-corrosive primer (substrate preparation in this case is described in the JUBIN Metal primer (WB) technical sheet).

Renovation of old coatings:

Remove old badly adhered paint coats, if they are well adhered to the substrate, only rub them with a hard wire brush or finely sand them (sandpaper no. 180 or 220).

## 6. Preparation of coating

Prior to application, only stir JUBIN Metal well. When applying the paint with a brush, dilution with water is not allowed. If the paint is applied by spraying dilute it with water up to 10 %. HVLP spray guns of different types can be used for spraying (with internal mixing of air), as well as airless aggregates of different versions. As regards to the choice of diameter of spraying nozzles and service pressure, follow producer's instructions.

ATTENTION! Paint coverage decreases rapidly with diluting!

## 7. Application of coating

Apply JUBIN Metal in two or three coats onto a dry and clean surface with a brush or by spraying it. In case of spraying, at least 80 – 100 microns of wet film must be applied in one coat. The thickness should be checked several times during application by using a wet film thickness gauge (comb). 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 (colour shade 5004) has a purple-blue touch, which disappears during the drying phase.

Thoroughly clean the tools with water immediately after use.

## 8. Maintenance and Restoration of Painted Surfaces

Painted surfaces do not require any special maintenance. Dust and other non-adhering filth can be simply swept or vacuumed. Remove adhered dust and stains by light rubbing using a wet cloth or a sponge soaked into a solution of traditional universal household preparations.

However, where filth and stains cannot be removed applying the methods described above, renovation painting is conducted which comprises a two-coat application of paint, as described in the chapter "7. Application of coating". At restoration painting, application of a primer is usually not necessary.

## 9. Storage, Transportation 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 24 months.

## 10. Other Information

Technical instructions contained in this brochure are provided based on 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.

Safety measures: Follow the instructions on the safety data sheet of the product.

A colour shade may differ from the print in the colour chart or from the approved sample. However, the total colour difference  $\Delta E_{2000}$  – 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 FAVOURITE FEELINGS 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 based on 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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## INFORMATIVE TABLE INCLUDING DEW POINT TEMPERATURES

Dew point temperature at a certain relative air humidity of the room											
Air temperature	Relative air humidity	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
30 °C	Substrate temperature in °C or dew point	-5,0	4,6	10,5	14,9	18,4	21,4	24,0	26,2	28,2	30,0
29 °C		-5,7	3,8	9,6	14,0	17,5	20,4	23,0	25,2	27,2	29,0
28 °C		-6,5	3,0	8,7	13,1	16,7	19,5	22,0	24,2	26,2	28,0
27 °C		-7,3	2,1	7,9	12,2	15,8	18,5	21,0	23,2	25,2	27,0
26 °C		-8,0	1,3	7,1	11,3	14,8	17,7	20,2	22,3	24,2	26,0
25 °C		-8,8	0,5	6,3	10,4	13,8	16,7	19,2	21,3	23,2	25,0
24 °C		-9,6	-0,3	5,4	9,5	12,9	15,7	18,2	20,3	22,2	24,0
23 °C		-10,3	-1,2	4,5	8,6	12,1	14,7	17,2	19,3	21,2	23,0
22 °C		-11,0	-2,0	3,6	7,7	11,1	13,9	16,3	18,3	20,3	22,0
21 °C		-11,7	-2,8	2,7	6,8	10,2	12,9	15,3	17,4	19,3	21,0
20 °C		-12,5	-3,6	1,9	6,0	9,3	12,0	14,3	16,4	18,3	20,0
19 °C		-13,2	-4,5	1,0	5,1	8,3	11,0	13,4	15,4	17,3	19,0
18 °C		-14,1	-5,2	0,2	4,2	7,4	10,1	12,4	14,5	16,3	18,0
17 °C		-14,9	-6,0	-0,7	3,3	6,5	9,1	11,5	13,5	15,3	17,0
16 °C		-15,7	-6,9	-1,5	2,4	5,5	8,1	10,5	12,6	14,3	16,0
15 °C		-16,4	-7,8	-2,4	1,5	4,5	7,2	9,5	11,6	13,3	15,0
14 °C		-17,2	-8,6	-3,3	0,6	3,5	6,2	8,5	10,6	12,3	14,0
13 °C		-17,9	-9,4	-4,2	-0,3	2,6	5,3	7,5	9,7	11,4	13,0
12 °C		-18,7	-10,2	-5,0	-1,2	1,7	4,4	6,6	8,7	10,4	12,0
11 °C		-19,5	-11,1	-5,9	-2,0	0,9	3,5	5,7	7,8	9,4	11,0
10 °C		-20,2	-12,0	-6,7	-2,9	0,1	2,5	4,8	6,8	8,4	10,0
9 °C		-21,0	-12,8	-7,6	-3,8	-0,8	1,6	3,8	5,8	7,4	9,0
8 °C		-21,6	-13,5	-8,5	-4,8	-1,8	0,6	2,8	4,8	6,5	8,0
7 °C		-22,3	-14,2	-9,4	-5,7	-2,8	-0,4	1,8	3,8	5,5	7,0
6 °C		-23,1	-15,0	-10,3	-6,6	-3,7	-1,3	0,8	2,8	4,5	6,0
5 °C		-24,0	-15,9	-11,2	-7,6	-4,6	-2,2	-0,1	1,8	3,5	5,0
4 °C		-24,8	-16,8	-12,0	-8,5	-5,5	-3,1	-1,0	0,8	2,5	4,0
3 °C		-25,6	-17,7	-12,9	-9,4	-6,4	-4,1	-1,9	-0,1	1,5	3,0
2 °C	-26,4	-18,5	-13,7	-10,2	-7,3	-5,0	-2,8	-1,0	0,6	2,0	
1 °C	-27,2	-19,3	-14,5	-11,1	-8,2	-5,8	-3,8	-1,9	-0,4	1,0	
0 °C	-27,9	-20,2	-15,4	-12,0	-9,2	-6,8	-4,8	-2,8	-1,4	0,0	

Example of how to use the table:

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.