

## TECHNICAL SHEET 20.15.01-ENG

### DECORATIVE PROTECTION OF METAL

# JUBIN METAL PRIMER

Anti-corrosive primer for protection of different types of metals

## 1. Description, Application

JUBIN METAL PRIMER is an anti-corrosive primer based on water dispersion of styrene-acrylate binders **for protection of non-demanding and simple constructions made of steel, iron, copper, zinc and aluminium, e.g. building furniture, fences, gutters, radiators and radiator pipes (temperatures of up to 60°C), machine housings, constructions of projecting roofs, etc. The product is suitable for surfaces both in exterior and in interior.** The product dries quickly, and it doesn't have unpleasant smell. It improves the adherence of final coatings to the aforementioned metals. After use, the tools are simply washed with water. The product is not suitable for protection of roof surfaces and surfaces laden with foot traffic. We recommend that horizontal surfaces are carried out with at least minimum inclination, (2 %), in order to enable flowing off of rainwater. In areas where rainwater will stagnate, the coating will have to be restored more often. Prior to applying the product, sharp edges must be grinded (minimum rounding radius is 1.0 mm). Welds on metals must be entirely filled in order to prevent dripping of water which occurs due to condensation in the interior of pipes and profiles. JUBIN METAL PRIMER is not suitable for use as an independent coating. It must be protected with one of decorative coatings. We do not recommend the use of JUBIN METAL PRIMER in aggressive industrial environments and in littoral zone with high salinity. Details regarding the use in individual specific case are listed in the table below:

Description		Primer	Decorative coat
- <b>First painting</b> <b>or</b> - <b>Restoration painting</b> (old coatings are cracked and do not adhere to surface – prior to painting, we remove them <b>partially or entirely</b> )	Elements made of steel or iron <b>exterior</b>	2 x JUBIN METAL PRIMER	2 x JUBIN METAL
	Elements made of copper, zincs or aluminium <b>outside</b> or <b>inside</b> construction facilities	1 x JUBIN METAL PRIMER	2 x JUBIN METAL
	Elements made of steel or iron <b>inside</b> construction facilities	/	3 x JUBIN METAL
	Elements made of steel or iron copper, zinc or aluminium <b>inside</b> construction facilities	2 x JUBIN METAL PRIMER	2 x JUBIN DECOR UNIVERSAL

## 2. Packaging and Colour Shades

Plastic pots holding 0.65 and 2.25 l (colour shade grey)

## 3. Technical Data

Density (kg/dm <sup>3</sup> )	~1.28
Content of vaporous organic substances (VOS) (g/l)	<11  The EU VOS requirement – category A/d (as of 1 January 2010): <130
Drying time T = +20 °C, relative air humidity = 65 %	Touch dry ~2



(hours)	Suitable for further treatment	~6
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Main ingredients: styrene-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

##### Surfaces made of iron or steel:

Corrosion products are removed mechanically (manually or by a machine) with a wire brush or sandpaper with grit sizes P-080, P100 or P-120. Prior to degreasing, grinded rust should be removed (mechanically by using compressed air aggregate or manually with a brush or broom). Deep hollows created due to long-term rusting need special attention. Grease and other filth can be removed with alcohol, acetone, nitro solvent or with other agent specialized for degreasing. In case of heavily greasy surfaces, repeat the degreasing procedure multiple times. After degreasing, clean all surfaces with dry cotton cloth (after cleaning, there should be no filth left on a cloth). Prior to applying anti-corrosive primer, the surfaces should be dry and clean, without dust and other non-adhered or badly-adhered particles.

Specifics:

If rust is removed with chemical acid-based agents (phosphorus acid), the surface must be thoroughly washed with water and dried; only then the anti-corrosive primer is applied.

##### Surface made of tinned sheet:

The surface should be grinded with a synthetic fibre grinding cloth. Grease and other filth can be removed with alcohol, acetone, nitro solvent or with other agent specialized for degreasing. In case of heavily greasy surfaces, repeat the degreasing procedure multiple times. Prior to applying anti-corrosive primer, the surfaces should be dry and clean, without dust and other non-adhered or badly-adhered particles.

##### Surface made of hot tinned sheet:

The surface should be grinded with P-80 grinding paper or it should be made coarse by light sandblasting. Grease and other filth can be removed with alcohol, acetone, nitro solvent or with other agent specialized for degreasing. In case of heavily greasy surfaces, repeat the degreasing procedure multiple times. Prior to applying anti-corrosive primer, the surfaces should be dry and clean, without dust and other non-adhered or badly-adhered particles.

##### Surface made of copper or aluminium:

Corrosion products are removed mechanically (manually or by a machine) with a synthetic fibre grinding cloth. Grease and other filth can be removed with alcohol, acetone, nitro solvent or with other agent specialized for degreasing. In case of heavily greasy surfaces, repeat the degreasing procedure multiple times. Prior to applying anti-corrosive primer, the surfaces should be dry and clean, without dust and other non-adhered or badly-adhered particles.

##### Restoration of old coatings:

Old, non-adhering paint coatings should be removed; if they adhere well to the surface, they should only be rubbed off with a solid wire brush or finely grinded (grinding paper No. 180 or 220).

#### 5. Paint Preparation

Prior to application, only stir JUBIN METAL PRIMER anti-corrosion coat well. When applying the coat with a brush, diluting with water is not allowed. If the paint is applied by spraying, it can be diluted with water up to 10%. The following can be used for spraying: low pressure spray guns of different types (with internal mixing of air), as well as "airless" aggregates of different configurations. As regards to the choice of diameter of spraying nozzles and service pressure, follow producer's instructions. ATTENTION! Paint coverage decreases rapidly with diluting!

#### 6. Paint Application

Apply JUBIN METAL PRIMER in one or two coats onto a dry and clean surface with a brush or spray it. When spraying it, at least 80 – 100 microns of wet film must be applied in one coat. During application, check the thickness several times



with a wet film comb. Due to quick drying, application in stripes without interruptions is recommended. Smear any drops immediately so that they do not dry.

Painting is possible only in suitable weather or microclimate conditions: the air temperature should not be lower than +5°C and not higher than +25°C (the optimum air temperature is +10 °C to +25 °C), and the 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 ( $\geq 30$  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.

#### PREVOD TABELE ZGORAJ:

#### INFORMATIVE TABLE INCLUDING DEW POINT TEMPERATURES

RH - RELATIVE AIR HUMIDITY

T°C - AIR TEMPERATURE



**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.

Approximate or average consumption for a one-coat application:

JUBIN METAL PRIMER      80 – 100 ml/m<sup>2</sup>, depending on roughness of the surface

Thoroughly clean the tools with water immediately after use. Keep unused and undiluted coating in a well-sealed package for potential repairs or later use.

## 7. Safety and Health at Work

Further instructions regarding handling the product, use of personal protection equipment, waste management, 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.

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## 8. Storage, Transport Conditions and Durability

Storage and transport at temperature +5 °C do +25 °C, protected from the 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.

## 9. 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 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.

## 10. 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  $\Delta E_{2000}$  – 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 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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**JUB kemična industrija d.o.o.**

Dol pri Ljubljani 28, 1262 Dol pri Ljubljani, Slovenija

T: (01) 588 41 00 h.c.

(01) 588 42 17 prodaja

(01) 588 42 18 ali 080 15 56 svetovanje

F: (01) 588 42 50 prodaja

E: jub.info@jub.si

[www.jub.eu](http://www.jub.eu)



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