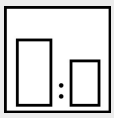
PU 500-20 2K PU Mica Topcoat matt

Technical data sheet

Intended use

2K polyurethane micaceous iron coating according to TL 918 300, sheet 87, can be used as topcoat within the anti-corrosion coating system for steel, zinced substrates and aluminium. Designed as top coating for bridges, railings, docks, piping and structures in aggressive atmosphere as well as for areas exposed to sewage and seawater. Durable corrosion protection and decorative effect.

Processing instructions



Mixing ratio

hardener	by weight (lacquer : hardener)	by volume (lacquer : hardener)
PU 912-XX	5 : 1	3 : 1

Hardener

Mipa PU 912-10, PU 912-25, PU 912-40

Pot life

with hardener -10 approx. 1.5 h at 20 °C

with hardener -40 approx. 8 h at 20 °C

Thinner

Mipa 2K-Verdünnung V 10, V 25, V 40

Processing viscosity

gravity spray gun	Airmix/Airless
20 - 30 s 4 mm DIN	30 - 40 s 4 mm DIN

Application mode

application mode	hardener	pressure (bar)	nozzle (mm)	spray passes	dilution
gravity spray gun/ HVLP	--	2,0 - 2,5	1,8 - 2,0	2	20 - 25 %
Airmix / Airless compound pressure	--	1,0 - 2,0 100 - 120	0,33 - 0,53	1	10 - 15 %
paint brush, roller	--	--	--	--	5 - 10 %

Drying time

hardener	object temperature	dust dry	set to touch	ready for assembly	sandable	recoatable
--	20 °C	25 - 30 min	50 - 60 min	10 - 12 h	--	--
--	60 °C	--	--	30 min	--	--

Fully cured after 5 - 6 days (at 20 °C).

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Note

Characteristics:	binder base:	polyurethane acrylic system
	solids content (% by weight):	~ 80
	solids content (% by volume):	~ 55
	delivery viscosity DIN 53211 4 mm (in s):	thixotropic
	density DIN EN ISO 2811 (kg/l):	~ 1,9
	gloss level ISO 2813 at 60° (GU):	matt*

Properties:
highest corrosion protection, abrasion-resistant, viscoelastic
highly UV- and weather-resistant
excellent resistance to chemical and mechanical strains
heat resistance:
- short-term heat exposure: 180 °C
- permanent heat exposure: 150 °C

Theoretical spreading rate:
~ 23,8 m²/kg, 5:1 by weight with PU 912-25, for 10 µm dry film thickness
~ 40,2 m²/l, 5:1 by weight with PU 912-25, for 10 µm dry film thickness

Storage:
For at least 3 years in the unopened original container. Optimum storage conditions between + 5 °C and + 25 °C, avoid direct sunlight. Other storage conditions may lead to undesirable properties of the material.

VOC:
< 500 g/l.**

Processing conditions:
From + 10 °C and up to 80 % relative humidity. Ensure adequate air ventilation.

Substrate preparation:
Remove oil, grease, rust, mill scale, rolling skins, as well as other substances impairing the function of the coating!

Attention: A direct adhesion cannot be taken as granted due to most different kinds of metals, alloys, metallic and conversion coatings and so on. The adhesion must therefore be tested on the original metal substrate.

steel:
- blast to cleaning degree Sa 2½, remove blast residues and overcoat promptly
- de-rust with hand and power tools to degree of cleanliness St 3
- degrease with Mipa WBS Reiniger or Mipa Silikonentferner

zinced substrates:
- clean the surface with the ammonia solution Mipa Zinkreiniger
- sweep blast

aluminium:
- degrease with Mipa 2K-Verdünnung, sand thoroughly with sandpaper P 360/400 and clean subsequently with Mipa Silikonentferner

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Proposed coating structure:

2-coat system
steel, zinced substrates:
priming coat: ***EP 100-20 with 50 - 70 µm dry film thickness
finishing coat: PU 500-20 with 50 - 60 µm dry film thickness

aluminium:
priming coat: ***EP 100-20 with 25 - 30 µm dry film thickness
finishing coat: PU 500-20 with 50 - 60 µm dry film thickness

3-coat system
steel, zinced substrates:
priming coat: ***EP 100-20 with 50 - 70 µm dry film thickness
intermediate coat: EP 500-20 with 60 - 80 µm dry film thickness (maximum corrosion protection with 140 - 160 µm DFT)
finishing coat: PU 500-20 with 50 - 60 µm dry film thickness
in case of permanent exposure to water
steel
priming coat: ***2K-Zinkstaubfarbe with 60 - 80 µm dry film thickness
intermediate coat: EP 500-20 with 60 - 80 µm dry film thickness (maximum corrosion protection with 140 - 160 µm DFT)
finishing coat: PU 500-20 with 50 - 60 µm dry film thickness

Special notes:

*Due to the special surface, a measurement according to DIN EN ISO 2813 is inappropriate!

**This product has the following maximum VOC-values:
- Applied by brush/roller with hardener PU 912-XX: < 500 g/l of VOC.
- Applied by spraying with hardner PU 912-XX: < 550 g/l.

***Further Mipa primers are available. Please contact your technical adviser or our application technicians.

For professional use only.

The details of the paragraphs - Proposed coating structure, Characteristics, Theoretical spreading rate, VOC - refer to the colour shade DB 701. For other colour shades, these may deviate.

In order to achieve optimum iron mica effects and to avoid strips, it is advisable to spray the finishing coat or to roll or paint in only one direction.

Check colour shade prior to application.

In case of application by means of an Airmix/Airless device, it is recommended testing beforehand the equipment for its suitability. If micro foam or bubbling emerge during the application with an Airmix/Airless device, it is recommended adding more thinner or using the additives 2K-Systemzusatz PUA and PUS. Furthermore, the film thickness should be kept as low as possible.

If required we also offer hardeners and cleaning agents that are suitable for 2-component mixing and dosing units. Please contact your technical adviser or our application technicians.

Cleaning of tools:

Clean tools immediately after use with Mipa Nitroverdünnung.

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