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Intended use

2K polyurethane acrylic monolayer with active protection against corrosion, very high gloss and fast drying in HS quality. Particularly suitable for high-quality single-layer coating of machines, chassis, components, constructions in interior and exterior areas. Direct adhesion on steel, zinced substrates and aluminium.

Processing instructions



Mixing ratio		
hardener	by weight (lacquer : hardener)	by volume (lacquer : hardener)
PU 912-XX, PU 933-10	3:1	3:1
PU 914-XX	5:1	4:1
PU 916-XX	6:1	5:1
A 60	6:1	6:1



Hardener

Mipa PU 912-10, PU 912-25, PU 912-40, PU 933-10

Mipa PU 914-10, PU 914-25, PU 914-40

Mipa PU 916-10, PU 916-25

Mipa PUR Plus Hardener A 60



Pot life

with hardener -10 approx. 1,5 h at 20 °C with hardener A 60 approx. 4 h at 20 °C



Thinner

Mipa 2K-Verdünnung V 10, V 25, V 40



Processing viscosity gravity spray gun

20 - 25 s 4 mm DIN

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Airmix/Airless

20 - 25 s 4 mm DIN

Recommendation: 25 s 4 mm DIN



Application mode					
application mode	hardener	pressure (bar)	nozzle (mm)	spray passes	dilution
gravity spray gun/ HVLP	PU 912 / 933	2,0 - 2,5	1,2 - 1,3	2 - 4	15 - 20 %
gravity spray gun/ HVLP	PU 914 / 916	2,0 - 2,2	1,5 - 2,0	1 - 3	5 - 10 %
Airmix / Airless compound pressure	PU 912-40	1,0 - 2,0 100 - 120	0,23 - 0,28	1	0 - 10 %
Airmix / Airless compound pressure (recommendation)	Mixing ratio 3:1 by weight with PU 912-40	2,5 100	Wagner 9/60	1	5 % 2K-Thinner V 40
paintbrush, roller*	A 60		-		0 - 5 %

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\bigcirc	Drying time hardener	object temperature	dust dry	set to touch	ready for assembly	sandable	recoatable
	-10	20 °C	10 - 15 min	2 - 3 h	12 h		
	-10	60 °C		20 min	30 - 40 min	-	
	-25	20 °C	20 min	5 - 6 h	16 h	-	
	-25	60 °C		30 min	45 min	-	
	-40 / A 60	20 °C	1,5 - 2 h	8 - 10 h	24 h	-	
	-40 / A 60	60 °C			1 h		_
	PU 933-10	20 °C	1,5 - 2 h	2 - 3 h	12 h	-	

Fully cured after 7 - 8 days (at 20 °C).

Characteristics: binder base: polyurethane acrylic system

solids content (% by weight): ~ 73
solids content (% by volume): ~ 57
delivery viscosity DIN 53211 4 mm (in s): 40 - 60
density DIN EN ISO 2811 (kg/l): ~ 1,4
gloss level ISO 2813 at 60° (GU): > 90 glossy

Properties: Active corrosion protection (zinc phosphate)

Electrostatic application possible

Highly water resistant

Highly UV- and weather-resistant

Heat resistance:

Short-term heat exposure: 180 °CPermanent heat exposure: 150 °C

Adhesion to steel, zinced substrates and aluminium

Theoretical spreading rate: $\sim 45,3$ m²/kg, 5:1 by weight with PU 914-XX, for 10 μ m dry film thickness.

 $\sim 54,5$ m²/l, 5:1 by weight with PU 914-XX, for 10 µm dry film thickness. $\sim 39,7$ m²/kg, 3:1 by weight with PU 912-XX, for 10 µm dry film thickness. $\sim 45,6$ m²/l, 3:1 by weight with PU 912-XX, 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: < 360 g/l.**

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

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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 substrate.

Steel:

- Blast to cleaning degree Sa 21/2, 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 Silikonent ferner.

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.

Proposed coating structure: Single coat system

Steel, zinced substrates, aluminium:

PU 215-90 with 50 - 60 μm dry film thickness.

2-coat system

Steel, zinced substrates, aluminium:

Priming coat: ***EP 100-20 with 50 - 70 µm dry film thickness or 25 - 30 µm dry film

thickness on aluminum.

Finishing coat: PU 215-90 with 50 - 60 µm dry film thickness.

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Special notes:

- *Suitable: e.g. mohair, nap, velour, Glattfilt, Rolloplan, foam paint roller.
- **This product has the following maximum VOC-values:
- Applied by brush/ roller with hardener A 60: < 420 g/l of VOC.
- Applied by spraying with hardener PU 916-XX: < 420 g/l of VOC.
- Applied by spraying with hardener PU 900-25, PU 912-XX: < 500 g/l of VOC.
- ***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 RAL 7035. For other colour shades, these may deviate.

Especially UV-resistant pigmentations (e.g. pastel shades for facades) are available on request.

Check colour 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.

To optimise the flow properties and to reduce blistering when applying by roller, we recommend adding 5 % of Mipa 2K-Systemzusatz PUS. Mipa 2K-Systemzusatz PUS must be stirred well in the paint otherwise cratering may result. For roller application, please consider generally the following hints:

- Before use, roll a new roller over the sticky side of a tape to remove fluff, hairs and so on.
- Soak new roller completely with paint before starting the application and roll out to remove entrapped air.
- Do not apply at direct sunlight or on heated substrates. Object and processing temperature should be between + 10 °C and max. + 25 °C.
- Apply only under dry weather conditions: no rain, dew or fog.
- Move roller uniformly and not too fast, get rid of stubborn bubbles by slow rolling with low contact pressure.
- Avoid to apply too thick layers in one pass.
- Due to the system, this product is not suitable for application on large surfaces.

Depending on the hardener in use and on the processing condition, the gloss level may prove to be higher or lower. The mentioned data refer to the hardener of series: "PU 914-XX".

Cleaning of tools:

Clean tools immediately after use with Mipa Nitroverdünnung.