PU 216-90 2K PU HS Topcoat gloss

Intended use

Mipa PU 216-90 is a low-solvent 2-component topcoat based on acrylic resin, suitable for coating commercial vehicles, construction and agricultural machinery, as well as technical equipment and machinery.

Processing instructions

Mixing ratio

hardener	by weight (lacquer : hardener)	by volume (lacquer : hardener)
PU 952-XX	4 : 1	2,5 : 1
PU 954-25	5 : 1	3 : 1

Hardener

Mipa PU 952-25, PU 952-35

Mipa PU 954-25 2K PU Hardener

Pot life

with hardener PU 952-25 approx. 5 h at 20 °C

with hardener PU 954-25 approx. 3 h at 20 °C

Thinner

Mipa 2K-Verdünnung 9403 lang

Processing viscosity

Ready to use after addition of hardener, a lower processing viscosity of approx. 20 s 4 mm DIN can be achieved by adding 2 % of Mipa 2K-Verdünnung 9403 lang

gravity spray gun	Airmix/Airless
approx. 35 - 40 s 4 mm DIN	approx. 35 - 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	1,2 - 1,3	2	0 %
Airmix / Airless compound pressure	--	1,0 - 2,0 100 - 120	0,23 - 0,28	1	0 %

Drying time

hardener	object temperature	dust dry	set to touch	ready for assembly	sandable	recoatable
--	20 °C	60 - 70 min	6 h	--	--	16 h
--	60 - 80 °C	--	--	45 min	--	--

Flash-off phase prior to forced drying = 15 min/20 °C. Fully cured after 7 days (at 20 °C).

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Note

Characteristics:	binder base:	polyurethan acrylic system
	solids content (% by weight):	~ 80
	solids content (% by volume):	~ 62
	delivery viscosity DIN 53211 4 mm (in s):	110 - 130
	density DIN EN ISO 2811 (kg/l):	~ 1,7
	gloss level ISO 2813 at 60° (GU):	80 - 100 glossy

Properties:

Electrostatic application is possible
Highly resistant to UV and weathering
Highly resistant to solvents, oils and petrols
Very good edge coverage and vertical stability
Good spray mist absorption
Heat resistance:
- Short-term heat exposure: 180 °C
- Permanent heat exposure: 150 °C

Adhesion to steel

Theoretical spreading rate:

~ 34,7 m²/kg, 5:1 by weight with PU 954-25, for 10 µm dry film thickness.
~ 52,6 m²/l, 5:1 by weight with PU 954-25, for 10 µm dry film thickness.
~ 31,2 m²/kg, 4:1 by weight with PU 952-25, for 10 µm dry film thickness.
~ 46,1 m²/l, 4:1 by weight with PU 952-25, 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:

< 340 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 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, aluminium:
Priming coat: **EP 106-20, EP 180-20 or PU 111-20 with 50 - 70 µm dry film thickness.
Finishing coat: PU 216-90 with 50 - 60 µm dry film thickness.

Steel, zinced substrates, aluminium:
Priming coat: **EP 163-20 with 110 - 130 µm dry film thickness.
Finishing coat: PU 216-90 with 50 - 70 µm dry film thickness.

Special notes:

*This product has the following maximum VOC-values:
- Applied by spraying with hardener PU 954-25: 420 g/l of VOC.
- Applied by spraying with hardener PU 952-25: 450 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.

Check colour before applying.

In case of a wet film thickness >120 µm, blistering may occur due to unfavourable environmental influences.

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.

Drying conditions:
Air drying: Significant changes in drying times occur at lower drying temperatures and at high relative humidity. If necessary, the drying parameters should be determined by a test coating on site.
Forced drying: Depending on the wet film thickness, the drying conditions (air speed, supply/exhaust air, temperature curves) must be determined.

Cleaning of tools:

Clean tools immediately after use with Mipa Nitroverdünnung.

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