WPU 4005-90 WBS 2K PU Synthetic Coating gloss

Technical data sheet



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Intended use

High-quality, water-based 2K PU paint for coatings on plastics like e.g. TPU, PA, ABS and PP for interior and exterior use. This paint is characterized by its particularly high mechanical and chemical resistance. Its special formulation allows the product to be used as ready-for-use colour paint or unpigmented as clear protection coat (clearcoat), without changing mixing ratio with the hardener.

After curing, the product fulfils the requirements of saliva and sweat resistance according to DIN 53160-1 and -2.

Processing instructions



Mixing ratio hardener WPU 9805-25

by weight (lacquer : hardener) by volume (lacquer : hardener)

6:1 5:1



Hardener

Mipa WPU 9805-25 WBS 2K PUR Hardener



Pot life

Maximum 3 h at 20 °C*



Thinner

Mipa WBS VE-Wasser



Processing viscosity

Always stir first the hardener in the paint and then thin by adding Mipa WBS VE-Wasser. Never mix water with the hardener.

gravity spray gun	Airmix/Airless

Application mode application mode hardener pressure nozzle dilution spray (bar) (mm) passes 2,0 - 3,0 1,2 - 1,5 2 -3 5 - 10 % gravity spray gun / **HVLP**



Drying time hardener	object temperature	dust dry	set to touch	ready for assembly	sandable	recoatable
	20 °C	80 - 90 min.	6 - 8 h	48 h		-
	60 °C		1 h	after cooling		

Fully cured after 3 - 4 days (at 20 °C).

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Note

Characteristics: binder base: polyurethane polyester system

solids content (% by weight): ~ 48 solids content (% by volume): ~ 34

delivery viscosity DIN 53211 4 mm (in s): 45 - 55 (at 20 °C)

density DIN EN ISO 2811 (kg/l): \sim 1,3 gloss level ISO 2813 at 60° (GU): \sim 85 gloss

Properties: Highly UV- and weather-resistant

Very good water resistance

Highly resistant to solvents and chemicals

Scratch resistant Heat resistance:

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

Adhesion to TPU (thermoplastic polyurethane), PA (polyamide), ABS, PP

(polypropylene)

Theoretical spreading rate: $\sim 35.9 \text{ m}^2/\text{kg}$ for 10 µm dry film thickness.

 \sim 38,8 m²/l for 10 μm dry film thickness.

Storage: For at least 1 year 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: < 100 g/l.

Processing conditions: From + 10 °C and up to 70 % 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!

TPU, PA, ABS, PP:

Degrease with Mipa Silikonentferner or Mipa Kunststoffreiniger antistatisch or use an appropriate pre-treatment method like flame treatment or plasma processing. To

ensure optimum adhesion it is recommend testing the recoatability.

Proposed coating structure: Single coat system

TPU, PA, ABS, PP:

WPU 4005-90 (usual film thickness: 20 µm, applicable up to max. 50 µm without

blistering).

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Special notes:

*Attention: The end of pot life does not manifest itself by viscosity increase. Exceeding the pot life results in a lower resistance to mechanical and chemical strains, in a reduction of gloss and in a higher tendency to blister.

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.

Paints that have been tinted with aluminium pastes must be protected from heat. Store at max. 25 °C. Failure to take this into account may lead to an internal pressure build-up.

In case of water-based paints, the pH value can decrease due to the nature of the system and the environment (storage/transport/etc.) and may cause a decline of viscosity. Please use Mipa WBS Systemzusatz WPH in order to restore the initial viscosity. Please read carefully the technical data sheet regarding the use of WBS Systemzusatz WPH.

Drying times reduce with increasing air velocity and degreasing relative humidity. When drying with air guns, the drying time can be reduced considerably. Optimum processing conditions: Air temperature 20 - 25 °C, object temperature > 15 °C, relative air humidity 40 - 60 %, air velocity > 0,4 m/s.

Check colour prior to application.

Cleaning of tools:

Clean tools immediately after use with Mipa WBS-Pistolenreiniger.

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