



PU01

0001

Polyurethane paints

2K-Polyurethane Topcoat Paint

Trade name / Product code	PU01 / 0001
Material base	Polyacrylic resin
Glossiness level	Glossy
Hardener	PT01
Thinner	AR10 / AR20 ; alternatively SR05
Hardening ratio Paint : hardener	10 : 1 parts by weight 8 : 1 parts by volume The paint should not be thinned before processing!
Reaction time	10 minutes after processing. Application of processed and thinned paint should be started after this period.
Pot life, 20 °C	Max. 6 hours. It is recommended to apply the processed and thinned paint within 3 hours. Processed mixture must NEVER be used after the lapse of the pot life (6 hours) and should not be mixed with a newly produced mix and vice versa!
Processing data	<p>Brush, roller Thinner: AR20 Application viscosity: 25 to 100 s / 4 mm cup DIN / 20 °C</p> <p>Air spraying Thinner: AR20, AR10 Application viscosity: 20 to 30 s / 4 mm cup DIN / 20 °C Jet: 1.3 - 1.6 mm Pressure: 3 - 5 bar</p> <p>Airless / airmix spraying Thinner: AR20, AR10 Application viscosity: 20 to 60 s / 4 mm cup DIN / 20 °C Jet: 0.28 - 0.33 mm airless / E311, E411 airmix Pressure: 120 - 150 bar airless 80 - 120 bar / 1.8 - 2.2 bar airmix</p>
Processing	<p>The minimum temperature of both the base and the hardener before processing should be 10 - 20 °C!</p> <p>Mix the paint thoroughly after opening the package. When using less than the whole package, weigh the pre-calculated quantity of paint (10 parts of base and 1 part of hardener by weight) or measure parts by volume using the appropriate rule (8 parts of base and 1 part of hardener by volume). After mixing both components thoroughly, thin the processed mixture to the viscosity value needed for the specific application with thinner AR10 or AR20. It is recommended to apply the paint after 10 minutes of processing (reaction time).</p>
Drying times at 20 °C Wet thickness 50 µm	<p>Dustproof / 20 °C: 30 minutes Touch dry / non-sticking / 20 °C: 60 minutes Workable / 20 °C: 6 hours Final curing time / 20 °C: 10 days</p> <p>The rate of cure and the time of achieving the final properties vary depending on the climatic conditions and coat film thickness</p>



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Technical data

Additional drying: after solvents have vaporized away (approx. 20 - 30 minutes after application).

Additional drying temperature: max. 60 °C

Colour: RAL, ČSN

Supplier viscosity, 20 °C: 40 – 80 s / 6 mm cup DIN

Density, base, 20 °C: 1.20 to 1.40 g/cm³ depending on colour

Dry matter content, base: approx. 72 % by weight

Dry matter content, processed mix: approx. 74 % by weight
approx. 55 % by volume, depending on colour

VOC content, base: approx. 280 g/kg

VOC content, processed mix: approx. 260 g/kg
approx. 340 g/l

Total organic carbon TOC content, processed mix: 190 g/kg

Theoretical spreading rate:
Dry film thickness 40 µm 10 to 12 m²/kg
Consumption depends on object shape, surface roughness, and application technique and conditions.

Maximum thinning to 500 g
VOC in 1 l of processed and
thinned mix

250 g AR10 per kg of processed mix.

Application data

Application conditions

Air temperature: +10 to +25 °C

Base and hardener temperature: +10 to +25 °C

Object surface temperature: min. 3 °C above dew point

Relative humidity of air: max. 70 %

Number of coats: 2 - 3

Wet film thickness: min. 50 - 75 µm per coat

Dry film thickness: 40 – 80 µm / total thickness

The thickness of a coat applied in a single working step on a vertical surface depends on object shape, surface roughness, and application technique and conditions.

Overcoatability: The paint can be overcoated with the same paint.

The second and third coat should be applied “wet on wet” after 30 - 60 minutes of spraying the first coat.

Maximum recoating interval: 10 days / 20 °C. After this period, the surface should be roughened slightly first to assure next coat adhesion.

Application

Top coats of metal products, steel structures, sheet-metal roofs, etc. The paint is also suitable for manual application with roller or brush. It provides excellent weather resistance, colour fastness and first-class adhesion to the substrate. It is suitable as a top coat with the application of an eligible primer (AC08-2, AC10, EP80, KG05-L, etc.). The paint can be used to coat mineral grounds and some plastics (making an adhesion test being advisable).

Surface preparation

Metal or mineral surface treated with a suitable primer.

Utility properties

The coating system is suitable for normal atmospheric loads. The cured coat is resistant to abrasion.

Cross-cut test (steel): degree 0 to 1

Temperature resistance:



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	Long term:	90 °C
	Short term (max. 60 minutes, dry):	120 °C
	Chemical resistance: The coating system is fully cured after 10 days at 20 °C. Only after this period it is possible to expose the coating system to utility loads. The cured coat resists mineral oils, diesel fuel, process liquids, and some other chemicals. For more details please contact our technical department.	
Cleaning and maintenance	The mixing and application tools should be cleaned as soon as possible with thinner C6000 or AR10, AR20, SR05.	
Packages	1 kg to 200 kg metal packages as agreed.	
Shelf life	Paint - 24 months; hardener - 6 months from the date of manufacture if kept in the original closed packages in a dry room, out of direct sunlight and at a temperature from +5 to +30 °C. The storage areas should meet all the conditions for storage of hazard class II combustibles.	
Documentation	Material Safety Data Sheet Product certificate Declaration of Conformity	Construction-technical certificate Certification Result Protocol
Waste disposal	Coating composition N 08 01 11 Waste paints Empty packages N 15 01 10 Packages containing residues of hazardous substances	
Disclaimer	The product data provided in this Technical Application Guide results from the current level of production, laboratory and application tests. The manufacturer reserves the right to make revisions according to the state of development. As the product is used frequently beyond our control, we cannot guarantee anything else than the quality of the product as such. We are not liable for any mistakes occurring due to wrong application, application past the shelf life or improper storage. This document only provides non-binding information that has to be concretized by the end user for the specific product type. On no account this document supersedes the identification data of this product specified in the material safety data sheet.	
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Before starting works with this product, ALWAYS read thoroughly the relevant material safety data sheet and the material safety data sheets of the applicable hardener and thinner! Observe the safe handling and occupational safety instructions. The product is a hazard class II combustible liquid.

For more detailed information please contact our technical department.