



PU06-23

0003

Polyurethane paints

2K- Single-Layer Polyurethane Paint

Trade name / Product code	PU06-23 / 0003
Material base	Polyacrylic resin
Glossiness level	Semi-matte
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. 3 hours. It is recommended to apply the processed and thinned paint within 60 minutes. <u>Processed mixture must NEVER be used after the lapse of the pot life (3 hours) and should not be mixed with a newly produced mix and vice versa!</u>
Processing data	<p>Air spraying</p> <p>Thinner: AR20, AR10</p> <p>Application viscosity: 25 to 40 s / 4 mm cup DIN / 20 °C</p> <p>Jet: 1.3 - 1.6 mm</p> <p>Pressure: 3 - 5 bar</p> <p>Airless / airmix spraying</p> <p>Thinner: AR20, AR10</p> <p>Application viscosity: 40 to 80 s / 4 mm cup DIN / 20 °C</p> <p>Jet: 0.28 - 0.33 mm airless / E311, E411 airmix</p> <p>Pressure: 120 - 150 bar airless 80 - 120 bar / 1.8 - 2.2 bar airmix</p> <p>Roller</p> <p>Thinner: AR20</p> <p>Application viscosity: 40 to 60 s / 4 mm cup DIN / 20 °C</p>
Processing	<p>The minimum temperature of both the base and the hardener before processing should be 10 - 25 °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</p> <p>Touch dry / non-sticking / 20 °C: 40 minutes</p> <p>Workable / 20 °C: 6 hours</p> <p>Final curing time / 20 °C: 10 days</p>



PU06-23

0003

Polyurethane paints

2K- Single-Layer Polyurethane Paint

Technical data

The rate of cure and the time of achieving the final properties vary depending on the climatic conditions and coat film thickness

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: thixotropic

Density, base, 20 °C: 1.20 to 1.25 g/cm³ depending on colour

Dry matter content, base: approx. 59 % by weight

Dry matter content, processed mix: approx. 60 % by weight
approx. 50 % by volume, depending on colour

VOC content, base: approx. 410 g/kg

VOC content, processed mix: approx. 400 g/kg

approx. 490 g/l

Total organic carbon TOC content, processed mix: 270 g/kg

Theoretical spreading rate:

Dry film thickness 40 µm 11 to 13 m²/kg

Dry film thickness 60 µm 7 to 8 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

20 g AR10 per kg of processed mix.

To Regulation No. 415/2012 Coll.

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: 1 - 2

Wet film thickness: min. 100 µm
recommended: 150 - 200 µm

Dry film thickness: min. 60 µm
recommended: 95 - 120 µm

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 coat can be applied "wet on wet" after 30 - 60 minutes of spraying the first coat.

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

Application

Prime and top coats of metal products (including hot-dip galvanized ones). It provides excellent corrosion and weather resistance and first-class adhesion to the substrate. It can be used as a single-layer or top coat applied on suitable 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

Any grease, scale, old coats, corrosion products and dust have to be removed



PU06-23

0003

Polyurethane paints

2K- Single-Layer Polyurethane Paint

Steel

thoroughly from the metal surface at least to St 3 or Sa 2 to 2½. This method of surface preparation allows achieving the optimum anticorrosive properties of the coats. Problematic spots such as edges, welds, joints, etc. should be pre-treated by strip coating with a brush or a roller. Paint application should be started within 6 hours of blasting at the latest to avoid flash corrosion occurrence!

Surface preparation Galvanized steel

Any mechanical dirt has to be removed from galvanized steel surfaces (areas) before coating and the surface degreased thoroughly by rinsing with water and suitable detergent. Using warm water is preferable.

It is recommended to make a test of suitability for the specific application purposes.

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:

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	Construction-technical certificate
Product certificate	Certification Result Protocol
Declaration of Conformity	

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.

Date of issue

31. 5. 2015



PU06-23 0003

Polyurethane paints

2K- Single-Layer Polyurethane Paint

Revision date | 31. 5. 2015

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.