Technical Datasheet

VARNISH-PU ANTI-SLIP

Anti-slip, UV-stable, transparent, two-component polyurethane varnish

Description

VARNISH-PU ANTI-SLIP is a transparent, anti-slip, aliphatic, two-component polyurethane varnish. The membrane formed is watertight and resistant to UV radiation, does not turn yellow and has great mechanical strength and chemical resistance. It offers the following benefits:

- Safe, slip-resistant surface in dry and wet conditions
- Easy application
- Resistance to UV radiation and weather conditions (rain, frost, etc.)
- Resistance to detergents, oils, seawater, and alkalis
- Strong adhesion to a variety of substrates without peeling or flaking
- Water vapor permeability

Certified according to EN 1504-2 and classified as a coating for surface protection of concrete.
CE marked.

Fields of application

VARNISH-PU ANTI-SLIP is used over decorative microcement coating systems, tiles (absorbent or non-absorbent), marble (polished or unpolished), epoxy coatings for swimming pools such as EPOXYCOAT-S, etc., when a slip-resistant finish is desired. Applicable also to stone and metal surfaces.
Specially formulated with UV filters, it protects underlying layers from the harmful effects of prolonged exposure to solar radiation, thereby minimizing the risk of chalking and discoloration.
For interior and exterior use.

Technical data

1. Properties of the product in liquid form

Form:	2-component, polyurethane resin
Colors:	transparent (satin)
Density (A+B):	1.01 kg/l
Viscosity (A+B):	400 mPa·sec (+23°C)
Mixing ratio (A:B):	100:20 by weight
Pot life:	~ 1.5 h (at +23°C)

2. Properties of the cured membrane

Tensile strength: (ASTM D412)	> 20 N/mm^2
Water impermeability: (DIN 1048)	5 atm
Hardness acc. to Shore D:	70
Abrasion resistance: (CS10/1000/1000) (ASTM D 4060)	≤ 90 mg
Capillary absorption: (EN 1062-3, requirement of EN 1504-2: w < 0.1)	0.02 kg/m^2·h$^{0.5}$
Water vapor permeability: (EN ISO 7783-2, permeable, Class I < 5 m)	Sd = 0.27 m
Adhesion: (EN 1542)	> 2.5 N/mm^2
Artificial weathering: (EN 1062-11, after 2000 h)	Pass (no blistering, cracking or flaking)
Reaction to fire: (EN 13501-1)	Euroclass F
Slip resistance: (EN 16165)	R10*

*In microcement coating systems,
Test report No: 2024 20990/3210, DGUV

Directions for use

1. Substrate preparation
The substrate must be dry, clean, free of grease, loose particles, dust, old coatings, etc.
Surfaces with trapped moisture (e.g. moisture under tiles) must be left to dry completely prior to the application of VARNISH PU ANTI-SLIP.

1.1. Non-porous substrates (e.g. glazed tiles, polished marble, etc.) should be treated with the special adhesion promoter PRIMER-S 165. The surface is cleaned with a cloth that has been soaked with the promoter. The cloth must be changed frequently.

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The first VARNISH-PU ANTI-SLIP coat is applied 20-30 min after the application of PRIMER-S 165. The adhesion promoter cleans the surface and increases the bond strength of VARNISH-PU ANTI-SLIP.
PRIMER-S 165 consumption: 30-70 g/m^2.

1.2. Porous substrates (e.g. absorbent tiles, unpolished marble, etc.) must be dry, clean, and free of contaminants and loose material. VARNISH-PU ANTI-SLIP is applied directly to the properly prepared substrate.

1.3. In microcement coating systems, VARNISH-PU ANTI-SLIP is applied as a final anti-slip layer following the application of the main varnishes (VARNISH-PU 2K).

2. Mixing
Components A (resin) and B (hardener) are packaged in two separate containers, at the correct, fixed mixing ratio by weight. All of component B is added to component A. The two components should be mixed for 2-3 minutes, using a low-speed mixer (300 rpm). It is important to thoroughly stir the mixture near the sides and bottom of the container to achieve uniform dispersion of the hardener.
It is advised to let it rest for a few minutes after mixing to help entrapped air escape.

3. Application – Consumption
VARNISH-PU ANTI-SLIP is applied by roller or brush in 1-2 coats. Each coat is applied within 24 hours from the previous one, providing it has dried, depending on the weather conditions.
Consumption: 70-120 g/m^2 per coat, depending on the porosity of the substrate.

Tools should be cleaned with SM-28 while VARNISH-PU ANTI-SLIP is still fresh.

Packaging

1 kg and 5 kg containers.

Shelf life – Storage

24 months from production date if stored in original, sealed packaging, in areas protected from humidity, frost and direct sunlight.
Recommended storage temperature: between +5°C and +35°C.
It is advised to store component B tightly sealed in its original packaging, since in the event of contact with ambient humidity it will harden.

Remarks

- Surfaces with entrapped moisture must be completely dry prior to the application of VARNISH-PU ANTI-SLIP.
- Application on epoxy systems must be done 1-2 days after their application and provided they have dried.
- When applied in swimming pools, the pool must be filled with water at least 7 days after the application of VARNISH-PU ANTI-SLIP.
- Surfaces where water-repellent impregnations have been applied in the past might cause adhesion problems. It is recommended to first perform a trial application to check the compatibility of the substrate.
- Temperature during the application and hardening of the product should be between +8°C and +35°C.
- Substrate moisture content must be < 4% and ambient humidity < 65%. High ambient humidity can negatively affect the curing of VARNISH-PU ANTI-SLIP.
- If the temperature is expected to be lower than +8°C or there is a chance of rain in the next 48 h, the application must be postponed.
- VARNISH-PU ANTI-SLIP is intended for professional use only.

Volatile Organic Compounds (VOCs)

According to Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory j, type SB, is 500 g/l (2010) for the ready-to-use product.
The ready-to-use product VARNISH-PU ANTI-SLIP contains a maximum of 500 g/l VOC.

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore, the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. | Edition: 10.06.2026

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CE

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EN 1504-2

DoP No.: VARNISH-PU ANTI-SLIP / 1889

Surface protection products

Coating

Water vapor permeability: Class I (permeable)

Capillary absorption: $w < 0.1$ kg/m^2·h$^{0.5}$

Adhesion strength by pull off test: ≥ 2.0 N/mm^2

Artificial weathering: No visual defects

Reaction to fire: Euroclass F

Dangerous substances comply with 5.3

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