Neodur® Varnish W One

Fast-drying, one-component, water-based hybrid varnish with a satin finish

Description

Fast-drying, one-component hybrid water-based clear varnish with a satin finish - based on durable acrylic and polyurethane resins & enhanced with nano-protection technology. Ideal for walls and decorative surfaces.

Particularly suitable for projects with strict timelines and renovations in occupied-operational spaces.

Fields of application

- Protection and decoration of micro-cement coatings on walls
- Protection and decoration of cement substrates, masonry renders, unpolished natural stones, and painted surfaces on walls of interior and exterior areas
- Coating of decorative elements and special concrete constructions, such as countertops, built-in furniture, lighting features, etc..

Packing

9L & 3L

Appearance

Clear, satin

Properties - Advantages

- Fast-drying – Dry to recoat in 3 hours: Ideal for fast wall applications, allowing for quick re-use of the space
- One component – Easy application and storage
- Odourless – Practically zero content in volatile organic compounds (*Zero-VOC*)
- Offers long-term resistance to yellowing and UV radiation
- Maintains a transparent satin finish of high aesthetic quality
- Protects against water absorption and enhances the appearance of decorative micro-cement coatings on walls
- Presents excellent abrasion resistance
- Offers very good resistance to dirt and common stains
- Exhibits excellent adhesion to a wide range of substrates, such as cement, brick, masonry renders, unpolished natural stones, and walls painted with emulsion paints
- Ideal for interior rooms where solvent fumes are unwanted
- Environmentally friendly and user friendly
- Excellent aesthetic result, without significantly altering the original natural appearance of the micro-cement surface

Certificates – Test reports

- CE Certification acc. to EN 1504-2
- Test report by the external independent quality control laboratory Geoterra (No. 2026/111)
- Complies with the V.O.C. content requirements acc. to the E.U. Directive 2004/42/CE

Technical characteristics	
Density (EN ISO 2811-1)	~1,01kg/L (±0,05)
Gloss (60°)	~50
Abrasion resistance (Taber Test, CS 10/1000/1000, ASTM D4060)	30mg
Adhesion strength (EN 1542)	≥1,5N/mm²
Flexibility (Mandrel Bend Test, ASTM D522, 180° bend, 1/8'' mandrel)	Pass
Scratch hardness (Sclerometer Test - Elcometer 3092)	2N
Permeability to CO_2 – Diffusion-equivalent air-layer thickness Sd (EN 1062-6)	>50m
Water vapour permeability – Diffusion-equivalent air-layer thickness Sd (EN ISO 7783)	<5m (Class I - permeable)
Consumption: 150-200ml/m² for two layers (on properly prepared surfaces)	

Application conditions	
Substrate moisture content	<4%
Relative air humidity (RH)	<65%
Application temperature (ambient - substrate)	+8°C min. / +35°C max.

Curing details	
Drying time (+25°C, RH 50%)	40 minutes
Dry to recoat (+25°C, RH 50%)	3 hours
Full hardening	~ 7 days
** Low temperatures during application and/or curing prolong the above times, while high temperatures reduce them*	

Instructions for use

Substrate preparation

The surface must be stable, clean, dry, protected from rising moisture and free of dust, oil, grease and loose materials. Any poorly adhering materials and older coatings should be removed, and the surface should be thoroughly cleaned by proper mechanical or chemical means. Depending on the substrate, appropriate mechanical preparation may be required, in order to smooth out the irregularities, open the pores and create the optimum conditions for adhesion.

Priming

Especially on porous substrates, it is recommended to use **Neodur® Varnish W One** as a primer, diluted 5-10% w/w with clean water.

Application

Neodur® Varnish W One is applied diluted 5% w/w with clean water, in at least two layers, by roller, brush or airless spray.

Special notes

- **Neodur® Varnish W One** should not be applied under wet conditions, or if wet conditions are expected to prevail during the application or the curing period of the product.
- **Neodur® Varnish W One** should not be applied on surfaces where water repellent impregnation materials (e.g., siloxane-based) or waxes have been applied in the past
- Depending on the porosity of the substrate, multiple protective coats may be required to achieve full sealing. In particular, on porous substrates where no primer has been applied, it is considered necessary to apply at least three coats of the varnish.
- Depending on the intended use, additional protective layers of the varnish may be required in order to form a film with increased overall thickness and enhanced durability.

Maintenance instructions

- In case of minor spills and stains, it is recommended to remove them as soon as possible by using a soft cloth along with warm clean water (temperature <+50°C)
- For the maintenance cleaning of the surface from dust and dirt, it is recommended to use a vacuum cleaner or a soft bristle broom. The use of hard brushes or wires to remove the stains should be avoided.
- For cleaning the surface from hardened stains, it is recommended to use a hard foam mop with a solution of water and ammonia (~3% dilution). Then, rinse off with clean warm water (temperature <+50°C) and dry the surface with a soft towel.
- In case of using commercial cleaning products, the use of neutral ones is recommended (pH between 7 and 10). Soaps or all-purpose cleaners containing water-soluble salts or harmful ingredients with high concentration in alkalis or acids should be avoided. Follow the manufacturer's recommendations with respect to the optimum

dilution with water. In any case, the first time a commercial cleaning product is used, it is recommended that a trial is made in a small surface area.

Appearance (cured)	Clear, satin
Packing	9L and 3L
Cleaning of tools – Stains removal	By water immediately after application. In case of hardened stains, by mechanical means
Volatile organic compounds (V.O.C.)	V.O.C. limit acc. to the E.U. Directive 2004/42/CE for this product of category AiWB "One-pack reactive performance coating": 140g/l (Limit 1.1.2010) - V.O.C. content of the ready-to-use product <140g/l
UFI code	D2T0-407E-A00R-7YT6
Storage stability	2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight

CE

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DoP No.: 4951-13

EN 1504-2

Neodur® Varnish W One

Surface protection products

Coating

Water vapour permeability	Class I
Adhesion strength	≥1,5N/mm^2
Capillary absorption and permeability to water	W<0,1Kg/m^{2}h$^{0.5}$
Permeability to CO_2	S_D>50m
Reaction to fire	Euroclass F
Dangerous substances	Complies with 5.3

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