

Neodur[®] Varnish W Gloss

**Transparent, water-based, two-component
aliphatic polyurethane glossy varnish**



Description

Two-component water-based aliphatic polyurethane clear glossy varnish, suitable for the protection of decorative micro-cement coatings and various other construction surfaces.

Fields of application

- Protection and decoration of micro-cement coatings
- Protection and decoration of cementitious and metallic surfaces, natural stone, polyester, industrial floors, epoxy and other resinous systems in interior or exterior areas
- Suitable for light to medium duty flooring applications
- Ideal for applications on walls



Packing

Sets (A+B) of 9kg, 3kg and 0,8kg

Appearance (cured)

Clear, glossy

Properties - Advantages

- Protects against water absorption and enhances the mechanical strength of micro-cement coatings and several other substrates
- Presents long-term resistance to solar radiation and yellowing
- Renders a final surface of high hardness with excellent resistance to abrasion and scratching
- Very good gloss retention, even after several years
- Presents very good resistance to dirt and common stains
- Provides the opportunity for quick recoating (in ~6 hours)
- Excellent adhesion properties on numerous substrates
- Ideal for interior rooms, where intense solvent fumes are unwanted
- May be also used for the creation of highly anti-slip surfaces, after the appropriate addition of antiskid additive
- Eco-friendly & user-friendly
- Excellent aesthetic result

Certificates – Test reports

- CE Certification acc. to EN 1504-2
Certificate of Conformity No. 1922-CPR-0386
- Test report by the external independent quality control laboratory Geoterra (No. 2023/702_5)
- Complies with the V.O.C. content requirements acc. to the E.U. Directive 2004/42/CE

Technical characteristics

Mixing ratio A:B (by weight)	2:1
Density (EN ISO 2811-1)	1,05kg/L (±0,05)
Gloss (60°)	>98
Abrasion resistance (Taber Test, CS 10/1000/1000, ASTM D4060)	17mg
Adhesion strength (EN 1542)	≥2,5N/mm ²
Flexibility (Mandrel Bend Test, ASTM D522, 180° bend, 1/8" mandrel)	Pass
Scratch hardness (Sclerometer Test - Elcometer 3092)	8N
Skid resistance (EN 13036-4, wet surface, with 2,5% w/w addition of Neotex® Antiskid M)	>50 (PTV – slider 55)
Liquid water permeability (EN 1062-3)	<0,1kg/m ² h ^{0,5}
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 II)
Resistance to temperatures (dry loading)	min. -30°C / max. +80°C
Consumption: ~125 gr/m² per layer (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

Pot life (+25°C, RH 50%)	2 hours
Drying time (+25°C, RH 50%)	3 hours
Dry to recoat (+25°C, RH 50%)	6 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 in the case of a micro-cement substrate, it is advisable to prime the surface with the hybrid primer **Neodur®** **Varnish PR** diluted 25-30% w/w with clean water.

Application

Once the primer is dry to overcoat, it is recommended to apply **Neodur® Varnish W Gloss** diluted 20-25% w/w with water, by roller or brush, in at least two layers.

The two components A & B are mixed in the predetermined ratio (2A:1B w/w) and, after the addition of water in the appropriate ratio, they are mechanically stirred for ~3 minutes with a low-speed stirrer until the mixture becomes homogenous. The mixture is left for ~5 minutes and then applied.

For enhanced anti-slip properties, it is recommended that the final layer of **Neodur® Varnish W Gloss** is applied after the product has been mixed 1,5-2,5% w/w with the anti-slip additive **Neotex® Antiskid M**.

Special notes


- **Neodur® Varnish W Gloss** 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 Gloss** 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, the application of multiple protective layers may be required to achieve full sealing. This is particularly important on cementitious substrates where no priming with **Neodur® Varnish PR** has been carried out, in which case the application of at least three layers of the varnish is deemed necessary.
- Depending on the intended use, the application of extra protective layers may be needed in order to form a protective film of increased total thickness.

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, glossy
Packing	Sets (A+B) of 9kg, 3kg and 0,8kg
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 AjWB “Two-Pack reactive performance coatings”: 140g/l (Limit 2010). V.O.C. content of the ready to use product <140g/l
UFI code	<i>Component A:</i> A4MH-501C-K00U-08WD <i>Component B:</i> 96MH-N0QR-W00A-NMH5
Versions	Neodur® Varnish W Satine , water-based, with satin appearance Neodur® Varnish W Mat , water-based, with mat appearance Neodur® Varnish Gloss , solvent-based, with glossy appearance Neodur® Varnish Satine , solvent-based, with satin appearance Neodur® Varnish Mat , solvent-based, with mat appearance
Storage stability	<i>A component:</i> 2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight. <i>B component:</i> 6 months, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight. Component B must be stored in an absolutely dry place, protected from frost and humidity. In case of contact with ambient moisture it can be polymerized inside the container.

 1922	
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1922-CPR-0386 DoP No.: 4951-03 EN 1504-2 Neodur® Varnish W Gloss Surface protection products Coating	
Water vapour permeability	Class II
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

The information supplied in this datasheet, concerning the uses and the applications of the product, is based on the experience and knowledge of NEOTEX® SA. It is offered as a service to designers and contractors to help them find potential solutions. However, as a supplier, NEOTEX® SA does not control the actual use of the product and therefore cannot be held responsible for the results of its use. As a result of continual technical evolution, it is up to our clients to check with our technical department that this present data sheet has not been modified by a more recent edition.

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