

## Neodur® Varnish Mat



**Transparent two-component polyurethane mat varnish,  
with UV filters**

### Description

Transparent two-component solvent-based polyurethane mat varnish with UV filters, cured with aliphatic polyisocyanates, suitable for the protection and decoration of micro-cement coatings and various other construction surfaces

### Fields of application

- Protection of decorative 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

### Properties - Advantages

- Offers a mat finish of high hardness, with increased anti-slip properties
- Protects against water absorption and enhances the mechanical strength of micro-cement coatings and several other substrates
- Contains UV filters, offering long-term resistance to solar radiation and yellowing
- Excellent adhesion properties on numerous substrates
- High resistance to chemicals (dilute acids, alkalis), abrasion and mechanical stress
- Demonstrates excellent resistance against pollutants and common stains
- High aesthetic result



### Packing

Sets (A+B) of 15,6kg, 5,2kg  
and 1kg

### Appearance (cured)

Transparent, mat

### 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. 2023/333\_32)
- Technical report for its resistance to common stains acc. to ASTM D1308-2
- 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)  | 38:14                                  |
| Density (EN ISO 2811-1)   | 1,00kg/L (±0,05)                       |
| Gloss (60°)   | 19                                     |
| Abrasion resistance (Taber Test, CS 10/1000/1000, ASTM D4060)                             | 20mg                                   |
| Adhesion strength (EN 1542)   | >2,5N/mm <sup>2</sup>                  |
| Flexibility (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)   | 0,01kg/m <sup>2</sup> h <sup>0,5</sup> |
| Permeability to CO <sub>2</sub> – 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                |
| <b>Consumption: ~125gr/m<sup>2</sup> per layer (on properly prepared surfaces)</b>        |  |

### Application conditions

|   |                         |
|---|-------------------------|
| Substrate moisture content                    | <4%                     |
| Relative air humidity (RH)                    | <65%                    |
| Application temperature (ambient - substrate) | +12°C min. / +35°C max. |

### Curing details

|   |       |           |
|---|-------|-----------|
| Pot life (RH 50%)   | +12°C | 2,5 hours |
|   | +25°C | 2 hours   |
|   | +30°C | 1 hour    |
| Dry to recoat (RH 50%)  | +12°C | 36 hours  |
|   | +25°C | 24 hours  |
| Full hardening  |       | ~ 7 days  |
| * Low temperatures and low humidity during application and/or curing prolong the above times, while high temperatures and high humidity 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 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. In this way, the natural appearance of the micro-cement coating is mostly maintained, without significantly darkening its colour or creating a “wet” effect after the application of **Neodur® Varnish Mat**.

### **Application**

The two components A & B are mixed at the predetermined ratio and stirred for app. 3 minutes with a low-speed electric stirrer until the mixture is homogeneous. The mixture should be left for app. 5 minutes and then, **Neodur® Varnish Mat** is applied by roller, brush or airless spray, in at least two layers. For enhanced anti-slip properties, it is recommended that the final layer of **Neodur® Varnish Mat** is applied after the product has been mixed 1,5-2,5% w/w with the anti-slip additive **Neotex® Antiskid M**.

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## Special notes

- High atmospheric humidity may negatively affect the curing of the varnish. In the case of exterior applications, the application of the varnish must be postponed if rainfall or highly humid conditions are expected to prevail in the next 48 hours.
  - **Neodur® Varnish Mat** should not be applied on surfaces where water repellent impregnation materials (e.g., siloxane-based) or waxes have been applied in the past
  - Neodur® Varnish Mat may be diluted with solvent Neotex® 1021.
  - 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. This is especially recommended for demanding applications, such as on bathtubs and shower trays.
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## 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  $< +60^{\circ}\text{C}$ )
- 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  $< +60^{\circ}\text{C}$ ) 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.

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| <b>Appearance (cured)</b>                      | Transparent, mat   |
| <b>Packing</b>                                 | Sets (A+B) of 15,6kg, 5,2kg and 1kg in metallic containers   |
| <b>Cleaning of tools –<br/>Stains removal</b>  | By <b>Neotex® 1021</b> immediately after application. In case of hardened stains, by mechanical means  |
| <b>Volatile organic compounds<br/>(V.O.C.)</b> | V.O.C. limit acc. to the E.U. Directive 2004/42/CE for this product of category AjSB<br>“Two-pack reactive performance coating”: 500g/l (Limit 1.1.2010) - V.O.C. content of the ready-to-use product $< 500\text{g/l}$  |
| <b>UFI code</b>                                | <i>A component:</i> WP50-N0TM-300T-GM7C<br><i>B component:</i> J8F0-80U9-R009-NRGT   |
| <b>Versions</b>                                | <b>Neodur® Varnish Gloss</b> , with glossy appearance<br><b>Neodur® Varnish Satine</b> , with satin appearance<br><b>Neodur® Varnish W Gloss</b> , water-based, with glossy appearance<br><b>Neodur® Varnish W Satine</b> , water-based, with satin appearance<br><b>Neodur® Varnish W Mat</b> , water-based, with mat appearance  |
| <b>Storage stability</b>                       | <i>A component:</i> 2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight<br><i>B component:</i> 12 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. |

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| <br>1922                                     |   |
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| 1922-CPR-0386<br>DoP No.: 4950-84<br><b>EN 1504-2</b><br><b>Neodur® Varnish Mat</b><br>Surface protection products<br>Coating |   |
| Water vapour permeability   | Class II                                |
| Adhesion strength   | ≥1,5N/mm <sup>2</sup>                   |
| Capillary absorption and permeability to water  | W<0,1Kg/m <sup>2</sup> h <sup>0.5</sup> |
| Permeability to CO <sub>2</sub>   | S <sub>D</sub> >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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