

Neodur® Polyurea M

**Transparent, fast-curing, solvent-free
aliphatic polyurea resin**

Description

Two-component, transparent, fast-curing solvent-free aliphatic polyurea resin. Offers high mechanical strength and exhibits long-lasting resistance to UV radiation, without yellowing

Fields of application

- Fast-drying repairs, sealing of marbles and smoothing of floors (with the addition of quartz sand)
- As a fast-curing primer (after dilution with solvent **Neotex® PU 0413**) prior to the application of **Neodur® FT Clear** (if required)
- Priming of vertical surfaces prior to the application of polyurea-based resin mortars



Packing

Set (A+B) of 2kg

Properties - Advantages

- Long-lasting resistance to UV radiation, without yellowing even after several years
- Very high compressive and flexural strength, as well as abrasion resistance
- Excellent adhesion on various substrates
- Fast-curing – May be overcoated 2-3 hours after the application, contributing to the quick completion of projects
- Wide range of applications

Technical characteristics

Mixing ratio A:B (by weight)	1:1
Density (EN ISO 2811-1)	1,12kg/L (±0,05)
Solids content by weight	~100%
Solids content by volume	~100%
Abrasion resistance (Taber Test, CS 10/1000/1000, ASTM D4060)	42mg
Adhesion strength (EN 1542)	≥3N/mm ²

Hardness Shore D (ASTM D2240)	75
Accelerated UV ageing in the presence of moisture (UVB-313, 4h UV @60°C + 4h condensation @50°C, ASTM G154)	Pass (>6000 hours)
Resistance to temperatures (dry loading)	-30°C min. / +80°C max.
Consumption: • ~0,7kg/m ² Neodur® Polyurea M + ~1,05kg/m ² Quartz Sand M-32 per mm of thickness (as a resin mortar with mixing ratio 1:1,5 by weight) • 50-100gr/m ² per layer depending on substrate (as a primer diluted 50-60% with Neotex® PU 0413)	

Application conditions	
Substrate moisture content	<4%
Relative air humidity (RH)	<65%
Application temperature (ambient - substrate)	+1°C min. / +35°C max.

Curing details	
Pot life (+25°C, RH 50%)	10 minutes
Dry to recoat – overcoat (+25°C, RH 50%)	2-3 hours (depending on the application)
Full hardening	~3 days
* Low temperatures during application and/or curing prolong the above times, while high temperatures and humidity reduce them	

Instructions for use

Substrate preparation

Concrete

The concrete must be min. Grade C20/25, with a tensile strength of $\geq 1,5\text{MPa}$, and allowed to cure for at least 28 days, taking all the necessary maintenance measures during its curing period. The cementitious substrate must be properly prepared mechanically (e.g. grinding, shot blasting, milling etc.) to smooth out the irregularities, achieve an open texture surface and ensure the optimum bonding.

The surface must be dry and protected from rising moisture, stable, clean and free of dust, grease, oil, etc. Loose friable material must be fully removed by brushing or sanding with a suitable machine and a high suction vacuum cleaner.

Ceramic tiles

Please consult the current technical data sheet of **Neodur® FT Clear**

Application (as binding resin for fast-drying repairing-leveling mortar)

Neodur® Polyurea M is applied by smooth trowel on the surface, mixed with Quartz Sand M-32 or M-300 in a ratio of 1:1 up to 1:2 by weight (depending on the application).

The two components A & B of **Neodur® Polyurea M** are mixed in the predetermined ratio (1A : 1B w/w) and stirred for app. 3 minutes with a low speed electric stirrer until the mixture is homogeneous. The quartz sand is then gradually added under continuous stirring, until the mixture becomes homogeneous. The resin mortar can be sanded and overcoated after ~2 hours (depending on the atmospheric conditions)

Application (as fast-curing primer)

Neodur® Polyurea M is applied by roller on the surface, diluted 50-60% with solvent **Neotex® PU 0413**.

The two components A & B of **Neodur® Polyurea M** are mixed in the predetermined ratio (1A : 1B w/w) and, after the addition of the solvent, they are stirred for app. 3 minutes with a low speed electric stirrer until the mixture is homogeneous. The primer is overcoated ~2-3 hours (also depending on the atmospheric conditions) with appropriate resinous systems (e.g. **Neodur® FT Clear**, **Neodur® Fast Track** or **Neodur® FT Elastic**).

Special notes

- **Neodur® Polyurea M** 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.
- The components should not have been stored at very low or very high temperatures, especially before mixing. Mixing and stirring of the mixture should be preferably done in the shade. The stirring of the mixture must be done mechanically and not manually with a rod, etc.
- Excessive stirring of the material should be avoided, in order to mitigate the risk of air entrapment. After stirring the mixture, it is recommended to apply the material shortly in order to avoid the development of high temperatures and potential hardening inside the can
- The substrate temperature must be at least 3°C above dew point to reduce the risk of condensation or blooming on the floor finish
- In case that an extended period of time (>24 hours) has passed between successive layers, it is recommended to lightly sand the surface of the previous layer, in order to avoid possible adhesion problems of the next layer
- Depending on the intended use and the desired workability of the resulting resin mortar, **Neodur® Polyurea M** can be mixed with bigger quantities of quartz sand

Appearance	Transparent
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Packing	Set (A+B) of 2kg in metal cans
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Cleaning of tools – Stains removal	By Neotex® 1021 or Neotex® PU 0413 immediately after application. In case of hardened stains, by mechanical means
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Volatile organic compounds (V.O.C.)	V.O.C. limit acc. to the E.U. Directive 2004/42/CE for this product of category AjSB “Two-Pack reactive performance coatings”: 500g/l (Limit 1.1.2010). V.O.C. content of the ready to use product <500g/l.
UFI code	<i>Component A:</i> 2W40-30M1-C00C-JHYS <i>Component B:</i> 23F0-80FH-400A-A2AP
Storage stability	1 year, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight

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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