

## Neodur® Fast Track SF Ci-25r NdP

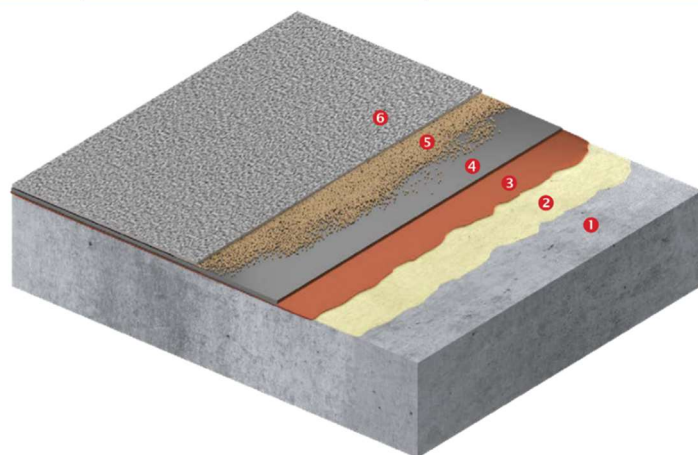
Slip-resistant, *fast-curing*, solvent-free coating system, with an abrasion resistant aliphatic polyurea finish of high resistance to UV radiation, for exterior and interior floors



- ✓ Dry film thickness: ~2,5mm
- ✓ For medium-heavy duty floors
- ✓ Full traffic in 24 hours
- ✓ Applicable within one day
- ✓ Solvent-free – Low odour
- ✓ Anti-slip finish
- ✓ Suitable for exterior use

### System Build-up – Indicative Consumptions

Layer	Product	Consumption
<b>Priming</b>	<b>Neodur® Primer SF</b>	120-150gr/m <sup>2</sup> for one layer
<b>Leveling layer (scratch coat)</b>	<b>Neodur® Polyurea M + Quartz Sand M-32</b> (0,1-0,3mm) - avg. ratio 1:1 w/w)	1,2-1,4kg/m <sup>2</sup> for the mixture (=0,60-0,70kg/m <sup>2</sup> resin + 0,60-0,70kg/m <sup>2</sup> sand)
<b>Protective base coat</b>	<b>Neodur® Fast Track SF</b>	~300gr/m <sup>2</sup> for one layer by roller
<b>Quartz broadcast</b>	Quartz sand 0,4-0,8mm	~3kg/m <sup>2</sup> (in excess)
<b>Sealing layer</b>	<b>Neodur® Fast Track SF</b>	~500gr/m <sup>2</sup> in 1-2 layers



### System Characteristics

<b>Nominal thickness</b>	2,5mm
<b>Final surface appearance</b>	Slip-resistant – Uniformly rough ( <i>effect of dense quartz broadcast</i> ) - Coloured
<b>Use load</b>	MD/HD (Medium-Heavy Duty)
<b>Abrasion resistance (ASTM D4060)</b>	<100mg (Taber Test, CS 10/1000/1000)
<b>Adhesion strength (EN 13892-8)</b>	≥3N/mm <sup>2</sup>
<b>Impact resistance (EN ISO 6272)</b>	≥4Nm - IR4
<b>Compressive strength (EN 13892-2)</b>	>35MPa
<b>Flexural strength (EN 13892-2)</b>	>20MPa
<b>Skid resistance (EN 13036-4, wet surface)</b>	>50 PTV (Pendulum Test Value, slider 96) R12 equivalent
<b>Resistance to temperatures (dry loading)</b>	-20°C min. / +80°C max.
<ol style="list-style-type: none"> <li>① Concrete substrate</li> <li>② Primer: <b>Neodur® Primer SF</b></li> <li>③ Scratch coat: <b>Neodur® Polyurea M + Quartz Sand M-32</b> (ratio 1:1 w/w)</li> <li>④ Base coat: <b>Neodur® Fast Track SF</b></li> <li>④ Broadcast: Quartz sand 0,4-0,8mm (in excess)</li> <li>⑤ Sealing layer: <b>Neodur® Fast Track SF</b></li> </ol>	



### System Description

Slip resistant, *fast-drying*, solvent-free, aliphatic polyurea coating system, of total thickness ~2,5mm, for interior and exterior floors (especially when the absence of odours is required). It forms a smooth, seamless & monolithic coating of closed porosity, which is resistant to medium-heavy loading and renders a waterproof and non-absorbent final surface.

Due to its fast-curing nature, it enables full and complete system application within one day, as well as the ability to deliver the project in full traffic the very next day.

### Indicative Fields of Application

Interior and exterior floors subject to medium-heavy stresses\*, e.g. in:

- Factories, warehouses, stores and supermarkets
- Parking and car service garages
- Car laundries and gas stations

\**Indicatively*: regular pedestrian traffic, frequent to constant traffic by cars-trucks & forklift trucks with rubber tires, occasional to frequent traffic by carts with hard plastic wheels, potential for impact

### Main System Products

**Neodur® Fast Track SF**: Fast-drying, solvent-free brushable aliphatic polyurea system. It constitutes the main material of the system, creating a floor coating with high mechanical resistance (abrasion, impact etc.), as well as chemical resistance (alkalis, dilute acids, mineral oils etc.) which guarantees the long-lasting protection of the substrate.

**Neodur® Polyurea M**: Transparent, fast-curing, solvent-free aliphatic polyurea resin, suitable for fast-drying repairs and smoothing of floors (with the addition of quartz sand).

**Neodur® Primer SF**: Fast-drying, solvent-free hybrid polyurea-polyurethane primer. Suitable for the protection of cementitious surfaces which will be covered with fast-drying polyurea systems. It stabilizes the substrate and creates an ideal bridge of adhesion for the subsequent coating.

### System Properties & Advantages

- Quick project completion: It consists of fast-drying products that allow the entire system to be applied within one day
- Project delivery in full traffic in 24 hours after the application
- Excellent resistance to solar radiation and adverse weather conditions
- Excellent resistance to abrasion and mechanical stress
- High chemical resistance (diluted acids & alkalis, car oils, petroleum etc.)
- Remarkable hardness and durability
- Anti-slip properties
- Excellent adhesion on concrete substrate
- Broad service temperature range

## Certificates – Test Reports

**Neodur® Fast Track SF**

- CE Certification acc. to EN 1504-2  
*Certificate of Conformity No. 1922-CPR-0386*
- CE certification acc. to EN 13813  
*Classified as SR-AR0,5-B2,0-IR4*
- Test report by the external quality control laboratory Geoterra (No. 2019/300 & 2021/483\_8)
- Test report for the determination of wear resistance by the Aristotle University of Thessaloniki – Civil Engineering Dept.
- Complies with the V.O.C. content requirements acc. to the E.U. Directive 2004/42/CE



## Technical Characteristics of Main System Products

	Neodur® Fast Track SF	Neodur® Polyurea M	Neodur® Primer SF
Mixing ratio A:B (by weight)	2:1	1:1	95:5
Density (EN ISO 2811-1)	1,35kg/L (±0,1)	1,12kg/L (±0,05)	1,14kg/L (±0,05)
Solids content by weight	~100%	~100%	~100%
Solids content by volume	~100%	~100%	~100%
Liquid water permeability (EN 1062-3)	<0,1kg/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)	-	-
Classification acc. to EN 13813	SR-AR0,5-B2,0-IR4	-	-

## System Application Conditions

Substrate moisture content	<4%
Relative air humidity (RH)	<80%
Application temperature (ambient - substrate)	+5°C min. / +35°C max.

Curing details			
	Neodur® Fast Track SF	Neodur® Polyurea M	Neodur® Primer SF
Pot life (+25°C, RH 50%)	10 minutes	10 minutes	20 minutes
Dry to recoat - overcoat (+25°C, RH 50%)	3 hours	2-3 hours (depending on the application)	3 hours
Full hardening – Full traffic (+25°C, RH 50%)	24 hours		
* Low temperatures during application and/or curing prolong the above times, while high temperatures and humidity reduce them			
System Method Application			

#### Substrate preparation

- The concrete must be min. Grade C20/25, with a tensile (pull-off) 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-textured surface and ensure optimum adhesion (recommended surface profile CSP-3, based on ICRI Technical Guideline 310.2R)
- The surface must be dry and protected from rising moisture, stable, clean and free of dust, oil, grease, etc. Loose friable material must be fully removed by brushing or sanding with a suitable machine and a high suction vacuum cleaner.
- The surface must be as smooth and flat as possible, as well as continuous (ie without voids, cracks etc.). Repairs to the substrate, filling of joints, blowholes/voids and surface leveling must be carried out using appropriate repairing products, such as the pourable epoxy-cement mortar **Epoxol® CM** and the epoxy putty **Epoxol® Putty**, or/and a mixture of **Epoxol® Primer SF-P** and Quartz Sand M-32 (indicative mixing ratio 1:1-2 w/w), after proper priming.
- For fast-drying repairs and surface levelling, it is recommended to use the polyaspartic putty **Neodur® FT Putty** or/and mixture of the fast-drying aliphatic polyurea resin **Neodur® Polyurea M** and Quartz Sand M-32 (indicative mixing ratio 1:1-2 w/w).

#### Priming

For the stabilization of the substrate and sealing of pores, as well as for creating the optimum conditions for stronger adhesion and higher coverage of the subsequent coating, it is recommended to apply the solvent-free, hybrid polyurethane-polyurea primer **Neodur® Primer SF**, in one thin layer by short-pile roller.

The two components A & B are mixed in the predetermined ratio (95A : 5B w/w) and stirred for app. 2-3 minutes with a low-speed stirrer, until the mixture becomes homogeneous. The mixture is then left in the container for a short period (~1 minute) and then poured entirely along the floor to be shortly applied, in order to avoid potential hardening of the mixture inside the container, due to the limited pot life.

The application rollers must have been previously dipped in the mixture, in order to avoid the possibility of inserting air due to the dry rollers.

**Consumption of Neodur® Primer SF:** 120-150gr/m<sup>2</sup> in one layer (in case of increased porosity a second layer may be required)

**Application of leveling layer (scratch coat)**

Once the primer is dry to overcoat – specifically after 2-3 hours (+25°C, RH 50%) – for the leveling of the substrate, it is recommended to apply the solvent-free aliphatic polyurea resin **Neodur® Polyurea M** mixed with Quartz sand M-32 in an average ratio of 1:1 w/w. The mixture is then applied by smooth trowel on the already primed substrate.

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.

*Indicative consumption of the mixture **Neodur® Polyurea M** + Quartz sand M-32: 1,2-1,4kg/m<sup>2</sup> (=0,6-0,7kg/m<sup>2</sup> **Epoxol® Primer SF-P** + 0,6-0,7kg/m<sup>2</sup> Quartz sand M-32)*

**Application of protective base coat**

Once the primer is dry to overcoat – specifically after 3 hours (+25°C, RH 50%), the first layer of the fast-drying aliphatic polyurea coating **Neodur® Fast Track SF** is applied in one layer by roller.

Prior to mixing, mechanical stirring of component A is recommended. The two components A & B are mixed in the predetermined ratio (2A : 1B w/w) and stirred for app. 1-2 minutes with a low-speed stirrer, until the mixture becomes homogeneous. The stirring must be done in the bottom and near the sides of the container, so that the hardener (component B) is evenly distributed. The mixture is then left in the container for a short period (~2-3 minutes) and then poured entirely along the floor to be shortly applied, in order to avoid potential hardening of the mixture inside the container, due to the limited pot life. The application rollers must have been previously dipped in the mixture, in order to avoid the possibility of inserting air due to the dry rollers.

During the application of **Neodur® Fast Track SF** as a coating, it is recommended to broadcast quartz sand 0,4-0,8mm until saturation (in excess) on the still fresh layer of **Neodur® Fast Track SF**, with an estimated sand consumption of ~3kg/m<sup>2</sup>. After drying, any loose grains should be removed with a high suction vacuum cleaner and any surface irregularities should be sanded down.

*Consumption of **Neodur® Fast Track SF**: ~300gr/m<sup>2</sup> in 1 layer by roller*

**Application of final protection layer**

After 3 hours (+25°C, RH 50%), the sealing layer of the aliphatic polyurea coating **Neodur® Fast Track SF** is applied in 1-2 layers by roller or squeegee.

Prior to the application, the mixing instructions are followed as described above.

*Consumption of **Neodur® Fast Track SF**: ~500gr/m<sup>2</sup> in 1-2 layers*

**Special Notes**

- After the application of the system, it is recommended that the floor's expansion joints are primed with **Neotex® PU Primer** or **Neodur® Primer SF** and then sealed with the elastomeric polyurethane sealant **Neotex® PU Joint** or with the epoxy repairing material **Epoxol® Putty** in its elastic version (mixing ratio 1A : 2-2,5B w/w). Any incorrect evaluation regarding the function of the joints while covering them with the resin system, as well as any insufficient or incorrect



repair of existing joints and cracks, may lead to the creation of cracks that are transferred to the resinous system from the substrate.

- The materials 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.
- It is recommended that the material used for the finish comes from the same production batch, in order to ensure that a completely uniform colour shade is achieved over the entire application surface.
- It is advisable to avoid over-rolling or back-rolling and that the application is continuous, since the fast-drying nature of the material may otherwise cause shades in the final surface

### System Chemical Resistance

The system presents durability against various chemical solutions (alkalis and dilute acids, petroleum products, salt water, various solvents etc.). For the indicative degree of chemical resistance to specific chemical compounds in relation to the contact time with them, please consult the respective chemical resistance table of the technical data sheet of **Neodur® Fast Track SF**. For specific specialized information, please contact the Technical Support Department of **NEOTEX®**.

### 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 clean warm water (temperature <+60°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°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.



- In case any chemical solutions come in contact with the floor, it is recommended to remove them as soon as possible (usually with warm water – temperature  $< +60^{\circ}\text{C}$  – under pressure), to avoid any further chemical stress and possible discolouration or alteration of the gloss of the floor finish. It is noted that the frequent contact of the coating with chemical solutions (especially dense corrosive ones), acts cumulatively on the chemical stress of the surface, even if the removal of the chemicals is done regularly and diligently. Therefore, in such cases, side-effects such as discolouration or loss of gloss may be considered a normal development over time, but it is also normal that the best possible maintenance and regular cleaning of the floor directly extends the operational life of the coating.

The information referred on the use and the application, are offered as a service to designers and manufacturers in the sense of facilitating the finding of possible solutions and is based on the experience and knowledge of NEOTEX® S.A.. Due to the development of knowledge and methods, it is at the discretion of each interested party to be informed by the NEOTEX® technical department as to whether this brochure has been replaced by a more recent one. The measurable technical data stated in the current technical data sheet are based on laboratory tests and may differ from the results of other individual measurements due to conditions beyond the control of NEOTEX®. The durability of the system is directly related to the condition of the substrate and the type of load (mechanical, chemical) to which the substrate is subjected. It is important that the application is done in accordance with the applicable official technical data sheets (TDS) of the materials and that the use of the surface is within the specifications of the materials. As a producer and supplier, NEOTEX® S.A. does not control the application, the substrate conditions or the actual use of the products and therefore cannot be held responsible for the final result or any failures caused by poor application or omissions, inadequate substrate conditions or due to the end use of the products

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