

## Neodur<sup>®</sup> Fast Track SF

Fast-curing solvent-free aliphatic polyurea system,  
for flooring applications



### Description

Brushable, fast-curing solvent-free aliphatic polyurea system, for exterior and interior flooring applications.

Dries and cures quickly, enabling the complete application of the flooring system within one day, as well as the delivery of the project the very next day (full traffic).



### Fields of application

Exterior and interior floors, especially in areas where solvent fumes are unwanted, such as in warehouses, parking and car service garages, shops, super markets, laundries, gas stations, interior areas with poor ventilation, etc.

*The surfaces require appropriate preparation and priming prior to the application of Neodur<sup>®</sup> Fast Track SF.*

### Packing

Sets (A+B) of 4,5kg

### Colours

RAL 7035 RAL 7038

### Properties - Advantages

- Minimal downtime: dry to recoat and walkable in 3 hours, facilitating the completion of a project within one day
- Quick turnaround: fully exploitable within 24 hours
- Unaffected by UV radiation and adverse weather conditions
- Applicable in one layer (on smooth and properly prepared substrates)
- Also applicable when low temperatures prevail
- Excellent resistance to abrasion and mechanical stress
- High chemical resistance (dilute acids, alkalis, car oils, petroleum etc.)

## Certificates – Test reports

- CE Certification acc. to EN 1504-2  
*Certificate of Conformity No. 1922-CPR-0386*
- CE Certification acc. to EN 13813  
*Classified as a synthetic resin screed material SR-AR0,5-B2,0-IR4*
- Test report by the external independent 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

Mixing ratio A:B (w/w)	2:1
Density (EN ISO 2811-1)	1,35kg/L (±0,1)
Solids content by weight	~100%
Solids content by volume	~100%
Gloss (60°)	83
Abrasion resistance (Taber Test, CS 10/1000/1000, ASTM D4060)	75mg
Adhesion strength (EN 1542)	>3N/mm <sup>2</sup>
Flexibility (ASTM D522, 180° bend, 1/8" mandrel)	Pass
Hardness Shore D (ASTM D2240)	75
Impact resistance (EN ISO 6272)	≥4Nm
Scratch hardness (Sclerometer Test - Elcometer 3092)	10N
Compressive strength (EN 13892-2)	≥35MPa
Flexural strength (EN 13892-2)	≥20MPa
Wear resistance BCA (EN 13892-4)	17µm (AR0,5)
Skid resistance (EN 13036-4, wet surface, by broadcasting Quartz Sand M-32)	>20 (PTV – slider 55)
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)
Service temperature (dry loading)	min. -20°C / max. +80°C
<b>Consumption: • 300gr/m<sup>2</sup> per layer (by roller) • 600gr/m<sup>2</sup> in one layer (by squeegee or trowel)</b>	

### Application conditions

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

*\*Neodur® Fast Track SF may be applied in colder conditions, if required, as it dries even at low temperatures down to -10°C, without significant changes in the technical properties of the final surface. In such case, the times of workability and curing are significantly affected, depending on the prevailing atmospheric conditions.*

### Curing details

Pot life (RH 50%)	+12°C	12 minutes
	+25°C	10 minutes
	+30°C	5 minutes
Dry to recoat – Walkability (RH 50%)	+12°C	4 hours
	+25°C	3 hours
	+30°C	3 hours
Full cure – Heavy traffic (RH 50%)	+12°C	36 hours
	+25°C	24 hours
	+30°C	24 hours

*\* Low temperatures during application and/or curing prolong the above times, while high temperatures and high humidity reduce them*

### Appropriate primers on cementitious substrate

	Primer	Description - Details
Solvent-free	<b>Neodur® Primer SF</b>	<i>Fast-drying</i> , two-component, solvent-free hybrid polyurea – polyurethane primer
	<b>Epoxol® Primer SF</b>	Two-component, solvent-free epoxy primer for flooring applications
	<b>Epoxol® Primer SF-P</b>	Two-component, solvent-free epoxy primer, ideal in cases of substrates with increased porosity
	<b>Neopox® Primer WS</b>	Two-component, solvent-free epoxy primer for wet surfaces (without ponding water or rising moisture)
	<b>Neopox® Primer AY</b>	Two-component, solvent-free anti-osmotic epoxy primer, for floors with rising moisture
Solvent-based	<b>Neodur® Fast Track PR</b>	<i>Fast-drying</i> , two-component solvent-based hybrid polyurea – polyurethane primer
	<b>Epoxol® Primer</b>	Two-component, solvent-based epoxy primer
Water-based	<b>Acqua Primer</b>	Two-component, water-based epoxy primer



## Instructions for use

### **Substrate preparation**

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-textured surface and ensure optimum adhesion.

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.

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 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 leveling, it is recommended to use the polyaspartic putty **Neodur® FT Putty** or/and a mixture of the fast-drying aliphatic polyurea resin **Neodur® Polyurea M** with 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 polyurea coating, it is proposed to prime the surface with the fast-drying hybrid primer **Neodur® Primer SF** or an alternative **NEOTEX®** primer, depending on the substrate (see table). In cases of substrates with increased porosity, an additional priming layer may be required.

After the primer has dried, any remaining imperfections (holes, cracks) can be puttied locally using the fast-drying repairing solutions (**Neodur® FT Putty** or/and **Neodur® Polyurea M** + quartz sand), as described above.

### **Application**

#### *Smooth finish*

Once the primer is dry to overcoat, it is recommended to apply the first layer of **Neodur® Fast Track SF**, undiluted, by roller or brush. The second (and every subsequent) layer is applied in the same way ~3-4 hours after the application of the previous layer (depending on the atmospheric conditions).

Alternatively, **Neodur® Fast Track SF** is applied at an increased thickness per layer by smooth trowel or squeegee. In that case, it is advisable to periodically check the wet film thickness, in order to ensure a uniform application thickness.

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 electric stirrer, until the mixtures become homogenous. 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.

Consumption of **Neodur® Fast Track SF**: 0,60kg/m<sup>2</sup> in two layers by roller or in one layer by squeegee or trowel

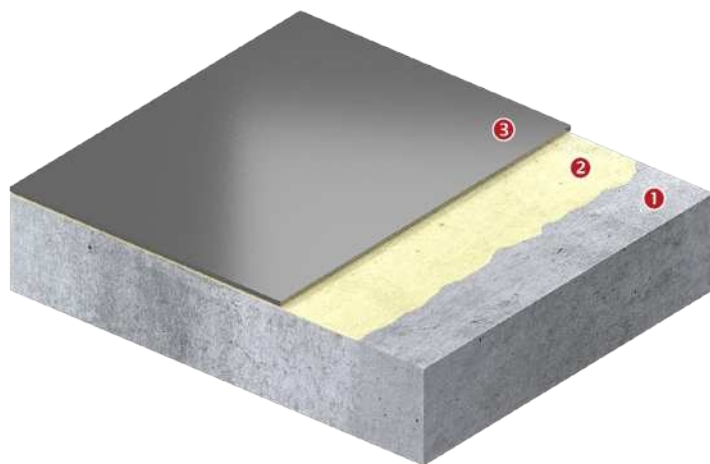
*Anti-slip finish with broadcast of Quartz Sand M-32*

After priming and during the application of the first layer of **Neodur® Fast Track SF**, it is recommended to broadcast Quartz Sand M-32 until saturation on the still fresh layer of **Neodur® Fast Track SF**, with an estimated sand consumption of 3-4kg/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.

The surface is sealed with **Neodur® Fast Track SF**, applied by squeegee or roller in 1 or 2 layers.

Consumption of **Neodur® Fast Track SF** as a sealing layer: 0,40-0,60kg/m<sup>2</sup> in 1 or 2 layers

### Indicative systems build-up

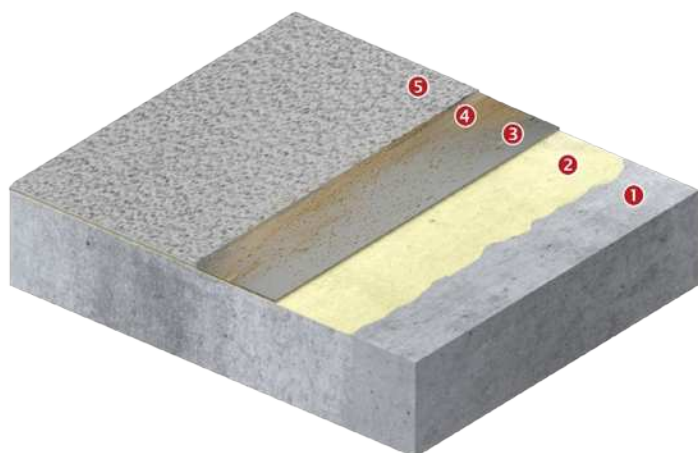


#### **SMOOTH POLYASPARTIC FLOORING SYSTEM WITH HIGH MECHANICAL AND CHEMICAL RESISTANCE**

Indicative thickness: 0,5mm

- ① Concrete substrate
- ② **Neodur® Primer SF** (or alternative **NEOTEX®** primer)
- ③ **Neodur® Fast Track SF** in one layer by squeegee or trowel





### SLIP RESISTANT POLYASPARTIC FLOORING SYSTEM WITH A HARD-WEARING FINISH

Indicative thickness: 1-2mm

- 1 Concrete substrate
- 2 Neodur® Primer SF (or alternative NEOTEX® primer)
- 3 Neodur® Fast Track SF in one layer by squeegee or trowel
- 4 Quartz sand (broadcast until saturation)
- 5 Neodur® Fast Track SF as a sealing layer

### Special notes

- Neodur® Fast Track SF should not be applied under wet conditions, or if wet conditions or rainy weather 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
- The application of Neodur® Fast Track SF by roller, as a smooth coating, leads to a mild embossed finish ("orange peel" finish)
- 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



- After the application of the system, it is recommended that the floor's expansion joints are sealed with the elastomeric polyurethane sealant **Neotex® PU Joint** or with the epoxy repairing material **Epoxxol® Putty** in its elastic version (mixing ratio 1A : 2-2,5B w/w)
- Depending on the desired slip resistance, quartz broadcast may be done by using quartz sand of greater granulometry (e.g. 0,4-0,8mm).

## 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°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.

## Chemical Resistance Table

Chemical substances (% content)	Contact time with chemicals (+20°C)		
	1 hour	5 hours	24 hours
Phosphoric acid (10%)	A	C	C
Sulphuric acid (10%)	A	B	C
Sulphuric acid (50%)	A	C	C
Hydrochloric acid (10%)	A	A	C
Lactic acid (10%)	A	A	C
Nitric acid (10%)	A	B	C
Sodium hydroxide (10%)	A	A	A
Formaldehyde (10%)	A	A	C
Ammonia (10%)	A	A	A
Chlorine (5%)	A	A	A
Diesel	A	A	A
Gasoline unleaded	A	A	A
Xylene	A	A	A
M.E.K	C	C	C



Alcohol 95°	A	A	A
Saltwater 15%	A	A	A
Engine oil	A	A	A
Wine (red)	A	A	A

**Evaluation of resistance**

A: Excellent resistance



B: Good resistance (light discoloration)

C: Reduced resistance (intense discoloration)

D: Not recommended

<b>Appearance (cured)</b>	Glossy
<b>Colours</b>	Light grey RAL 7035, Grey RAL 7038 Available in other shades upon request
<b>Packing</b>	Sets (A+B) of 4,5kg in metallic containers
<b>Cleaning of tools – Stains removal</b>	By <b>Neotex® PU 0413</b> immediately after application. In case of hardened stains, by mechanical means
<b>Volatile organic compounds (V.O.C.)</b>	V.O.C. limit acc. to the E.U. Directive 2004/42/CE for this product of category AjSB: 500g/l (Limit 1.1.2010) - V.O.C. content of the ready-to-use product <500g/l
<b>UFI code</b>	<i>Component A:</i> T140-10Q2-900E-X454 <i>Component B:</i> 4440-J0DF-K00W-KFR6
<b>Versions</b>	<b>Neodur® Fast Track</b> , fast-curing high-solid, solvent-based brushable aliphatic polyurea system, for flooring applications
<b>Storage stability</b>	2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight



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<b>NEOTEX S.A.</b> V.Moira str., P.O. Box 2315 GR 19600 Industrial Area Mandra, Athens, Greece		<b>NEOTEX S.A.</b> V.Moira str., P.O. Box 2315 GR 19600 Industrial Area Mandra, Athens, Greece	
19 1922-CPR-0386 DoP No.: 4950-48 <b>EN 1504-2</b> <b>Neodur® Fast Track SF</b> Surface protection products Coating		22 DoP No.: 4950-78 <b>EN 13813 SR-AR0,5-B2,0-IR4</b> <b>Neodur® Fast Track SF</b> Synthetic Resin screed material for use internally in buildings	
Water vapour permeability	Class II	Release of corrosive substances	SR
Adhesion strength	$\geq 1,5\text{N/mm}^2$	Wear resistance	AR0,5
Capillary absorption and permeability to water	$W < 0,1\text{kg/m}^2\text{h}^{0,5}$	Impact resistance	IR4
Permeability to CO <sub>2</sub>	$S_D > 50\text{m}$	Bond strength	B2,0
Reaction to fire	Euroclass F	Reaction to fire	NPD
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.

**HEADQUARTERS - PLANT**  
 V. Moira str., Xiropigado  
**LOGISTICS SALES & CENTER**  
 Loutsas str., Voro

P.O. Box 2315, GR 19600  
 Industrial Area Mandra  
 Athens, Greece  
 T. +30 210 5557579

**NORTHERN GREECE BRANCH**  
 Ionias str., GR 57009  
 Kalochori, Thessaloniki, Greece  
 T. +30 2310 467275