

TRAFFIDECK FLEX 3000 HA

Solvent-free, waterproofing elastic polyurea membrane for manual applications



CE marking:

→ EN 1504-2 (C) • Principles: PI-MC-IR



SPECIFICATIONS



FIELD OF APPLICATION



APPLICATIONS



Description

TRAFFIDECK FLEX 3000 HA is a two-component, solvent-free product based on highly reactive polyurea resins capable of forming, after cross-linking, a membrane with excellent chemical/physical characteristics:

- high waterproofing;
- remarkable resistance to hydrolysis;
- excellent resistance to ageing;
- high resistance to punching, abrasion, tearing, tearing and mechanical tensile stress (elongation at break);
- remarkable crack-bridging capabilities.

CE marking

► EN 1504-2

TRAFFIDECK FLEX 3000 HA fulfils the principles defined in the EN 1504-9 standard ("Products and systems for the protection and repair of concrete structures: definitions, requirements, quality control and evaluation of conformity. General principles for use of products and systems") and to the requirements of the EN 1504-2 standard ("Protection systems for concrete surfaces") for the following class:

→ PI-MC-IR

- For Principle 1 (PI) - Protection against penetration risks: 1.3 Coating (C), ZA.1d.
- For Principle 2 (MC) - Humidity control: 2.2 Coating (C), ZA.1e.
- For Principle 8 (IR) - Resistance increase through the limitation of the humidity content: 8.2 Coating (C), ZA.1e.

Colour

TRAFFIDECK FLEX 3000 HA is available in GREEN (RAL 6025).

Field of application

TRAFFIDECK FLEX 3000 HA is mainly used for waterproofing concrete structures such as:

- roof slabs intended for parking;
- flat roofs;
- bridge decks;
- terraces;

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- roof gardens.

TRAFFIDECK FLEX 3000 HA is able to adhere even to steel, wood and bituminous membrane surfaces using specific primers (as described in the paragraph "Specific preparation of the laying support").

TRAFFIDECK FLEX 3000 HA is not suitable for creating waterproofing coating on bituminous conglomerates (asphalt carpets).

Advantages

- TRAFFIDECK FLEX 3000 HA is mixed and applied by hand and does not require special equipment for mixing/spraying.
This makes it convenient for applications on limited areas or difficult to access the spray equipment required for the application of TRAFFIDECK FLEX 2000 SG (see Data Sheet).
- TRAFFIDECK FLEX 3000 HA cures quickly and soon becomes walkable.
- TRAFFIDECK FLEX 3000 HA shows a high degree of elasticity even at extremely low temperatures.
- TRAFFIDECK FLEX 3000 HA gives rise to a membrane with exceptional physical/mechanical characteristics.

Specific preparation of the laying support

► Dry concrete surfaces with no rising damp with vapour barrier under the pour

- The substrate must be carefully examined to ensure that it is a suitable and structurally sound base.
- The tensile strength should not be less than 1.5 MPa.
- The compressive strength must be greater than 25 MPa.
- Perform one of the following preliminary surface treatments:
 - diamond grinding;
 - shot peening.
- Depressions and surface inconsistencies must be compensated with GROVE RIPRISTINO, GROVE 30, GROVE RAPIDO or GROVE RASANTE (see Technical Data Sheets).
- Apply a coat of MALTA BASE filled with 0.1 – 0.6 QUARZO NATURALE sand (1 part by weight of MALTA BASE A+B with 1 part by weight of quartz sand).
- Sprinkle on the fresh product with NATURAL QUARTZ sand 0.3 – 0.9 or, alternatively, 0.4 – 0.6.
- Wait until the next day for the surface to be sanded.
- Vacuum up excess quartz.
- Apply TRAFFIDECK FLEX 3000 HA.

► Dry screeds without rising damp with vapour barrier under the jet

- The substrate must be carefully examined to ensure that it is a suitable and structurally sound base.
- Perform a sanding with a double cloth disc as a preliminary surface treatment.
- Depressions and surface inconsistencies must be compensated with GROVE RIPRISTINO, GROVE 30, GROVE RAPIDO or GROVE RASANTE (see Technical Data Sheets).
- Apply a coat of MALTA BASE filled with 0.1 – 0.6 QUARZO NATURALE sand (1 part by weight of MALTA BASE A+B with 1 part by weight of quartz sand).
- Sprinkle on the fresh product with NATURAL QUARTZ sand 0.3 – 0.9 or, alternatively, 0.4 – 0.6.
- Wait until the next day for the surface to be sanded.
- Vacuum up excess quartz.
- Apply TRAFFIDECK FLEX 3000 HA.

► Wet concretes or screeds with moisture content up to 6% (according to UNI 10329, DIN 18560-4 or ASTM D4944, carbide method) with vapour barrier under the cast

- Follow the preparation procedure described in the previous paragraph.
- For the base coat, use WET & DRY PRIMER (see Technical Data Sheet) instead of MALTA BASE.

► Damp concrete or screed without vapour barrier under the cast

- The substrate must be carefully examined to ensure that it is a suitable and structurally sound base.
- Apply W3 IMPERMEABILIZZANTE as a counter-thrust vapour barrier according to the methods described in the Technical Data Sheet (see).
- Wait at least 48 hours for the product to mature.

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- Apply a coat of FONDO WET&DRY filled with 0.1 – 0.6 NATURAL QUARTZ sand (1 part by weight of FONDO WET&DRY (A+B) with 1 part by weight of QUARTZ).
- Sprinkle on the fresh product with NATURAL QUARTZ sand 0.3 – 0.9 or, alternatively, 0.4 – 0.6.
- Wait until the next day for the surface to be sanded.
- Vacuum up excess quartz.

► *Steel sheets*

- Remove rust, oxide or calamine by brushing, sanding or, if possible, sandblasting to almost white metal (HS grade 21/2 according to SIS055900-1967).
- Wipe off the dust, then clean the surface with NORPHEN SOLVENT or nitro thinner.
- Proceed with the application of NORPHEN FONDO MA as soon as possible to avoid reoxidation of the metal.

This is particularly important in the marine environment or where corrosive vapours are present.

- Dust the surface treated with NORPHEN PRIMER MA with 0.1 – 0.6 QUARTZ sand.
- Allow at least 8 – 12 hours for NORPHEN FONDO MA to dry.
- Apply a coat of MALTA BASE filled with 0.1 – 0.6 QUARZO NATURALE sand (1 part by weight of MALTA BASE A+B with 1 part by weight of quartz sand).
- Sprinkle on the fresh product with NATURAL QUARTZ sand 0.3 – 0.9 or, alternatively, 0.4 – 0.6.
- Wait until the next day for the surface to be sanded.
- Vacuum up excess quartz.
- Apply TRAFFIDECK FLEX 3000 HA.

► *Wooden/OSB/chipboard panels*

- The substrate must be carefully examined to ensure that it is a suitable and structurally sound base.
- Check that there are no resinous paints or adhesives on the surface. If so, delete them.
- Apply a coat of MALTA BASE filled with 0.1 – 0.6 QUARZO NATURALE sand (1 part by weight of MALTA BASE A+B with 1 part by weight of quartz sand).
- Sprinkle on the fresh product with NATURAL QUARTZ sand 0.3 – 0.9 or, alternatively, 0.4 – 0.6.
- Wait until the next day for the surface to be sanded.
- Vacuum up excess quartz.
- Apply TRAFFIDECK FLEX 3000 HA.

► *Bituminous membranes*

- Check that there are no resinous paints or adhesives on the surface. If so, delete them.
- Apply a coat of FONDO IGRO SL (see Technical Data Sheet).
- Lightly sprinkle with 0.1–0.6 mm NATURAL QUARTZ sand.
- Attendere almeno 3 ore (a +25°C e 60%RH) affinché il prodotto reticoli per effetto dell'umidità atmosferica e indurisca divenendo calpestabile.
- Remove the unbound sand.
- Apply TRAFFIDECK FLEX 3000 HA.

NOTE: in case of doubt about the compatibility of the product with the laying media or in special cases, a preventive test must be carried out on a small sample area.

Contact the Nord Resine Technical Service at support@nordresine.com

Preparing the product

- Mix TRAFFIDECK FLEX 3000 HA comp. B thoroughly with a professional mechanical mixer at low speed.
- Completely disperse any deposits present in comp. B until a perfectly homogeneous product is obtained.
- Pour TRAFFIDECK FLEX 3000 HA comp. A in comp. B and mix thoroughly with a professional low-speed mixer.
- Mix thoroughly until perfectly homogeneous, not continuing the operation for more than 60 seconds. The perfect homogeneity is achieved when the color of the product is a uniform green.
- Apply the product immediately after mixing.

Application of the product

► *Installation of TRAFFIDECK FLEX 3000 HA*

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- Pour TRAFFIDECK FLEX 3000 HA onto the surface and spread, as a self-levelling agent, using a steel notched trowel with a 5 mm tooth.
- If necessary, help the product to spread and level by means of a bubble protection roller.
- The membrane can be covered with subsequent coatings after 4 hours and within 36 hours of application at +20°C.
- To carry out over-applications or reshoots with TRAFFIDECK FLEX 3000 HA after 36 hours from application, it is necessary to clean the surface (if necessary) and apply a coat of CONSOLID PRIMER (see Technical Data Sheet) as adhesion promoter.

► Coloured protective finishes

Within 36 hours following the installation of TRAFFIDECK FLEX 3000 HA, proceed with the application of any TIPEWALL or NORDPUR SW protective finish, in two roller coats or in a single spray hand (see table "Consumption").

Consumption

type of application	minimum consumption	maximum consumption	u.m.	notes
To obtain a membrane with a thickness of 1 - 1.1 mm	1,4	1,6	kg/m ²	(1),(2)
For roller application of the TIPEWALL or NORDPUR SW coloured finish	0,12	0,15	kg/m ²	(3)
For spray application of the TIPEWALL or NORDPUR SW coloured finish	0,20	0,20	kg/m ²	(4)

(1) Minimum recommended thickness for surfaces subjected to pedestrian traffic: 1.0 mm.

(2) Minimum recommended thickness for surfaces subjected to light vehicular traffic: 1.8 mm.

(3) For each coat of product.

(4) Applied in a single coat.

Cleaning of tools

- Fresh product: cleaning with ACETONE, TIPEWALL SOLVENT, NORDPUR SOLVENT, polyurethane thinner or nitro thinner.
- Hardened product: mechanical removal, specific paint strippers (GEL STRIPPER or FLUID STRIPPER) or heat gun.

Useful application tips

- TRAFFIDECK FLEX 3000 HA can be applied at temperatures ranging from +35°C to +5°C as long as the surfaces are free of condensation.
 - Over-applications or filming must be carried out within 36 hours at the latest.
- Over 36 hours use CONSOLID PRIMER as an adhesion promoter.
- Read the Safety Data Sheet carefully before use.

Technical data

► PRODUCT IDENTIFICATION DATA		value
Density at 23°C (component A), EN ISO 2811-1	kg/L	1,08 ± 0,01
Density at 23°C (component B), EN ISO 2811-1	kg/L	1,85 ± 0,02
Density at 23°C (mixture A+B), EN ISO 2811-1	kg/L	1,46 ± 0,02
Appearance (Component A)	-	Dark viscous liquid
Appearance (Component B)	-	Green viscous liquid

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► APPLICATION DATA AND FINAL PERFORMANCE		value
Mixing ratio by weight (A:B)	-	1,00 : 1,00
Pot-life (thermometric), 1 kg A+B, +23°C to +40°C, EN ISO 9514	Min	30 ± 2
Brookfield apparent dynamic viscosity (23°C / 50% RH; spindle ASTM#4, 40 rpm), mixture A+B, EN ISO 2555	mPa*s	3500 ± 800
Minimum application temperature	°C	+5 (in the absence of dew)
Maximum application temperature	°C	+35
Operating temperature	°C	-40 to +100
Surface drying time (+23°C, 50%RH), EN ISO 9117-3	Hours	2,0 ± 0,5
Walking time, +23°C, 50%RH	Hours	4 ± 1
Time interval for covering with subsequent treatments	Hours	4 – 36
Full maturation time (at +23°C, 50% RH)	days	7
Shore A hardness (A+B, maturation 7 days at +23 °C, 50 %RH), EN ISO 868	-	(76 ± 2)°
Shore D hardness (A+B, maturation 7 days at +23 °C, 50 %RH), EN ISO 868	-	(25 ± 2)°
Water vapour permeability (μ), dry cup method, total thickness 1.00 mm, DIN 52615	-	1800 ± 100
Tensile strength at +23 °C, thickness = 2.1 mm, 2.5 mm/min, EN ISO 527-3	Mpa	9,2 ± 0,1
Elongation at break (traction) at +23 °C, thickness = 2.1 mm, 2.5 mm/min, EN ISO 527-3	-	(600 ± 20)%
► TECHNICAL DATA		value
Water vapour permeability, SD equivalent air thickness, thickness 1.0 mm, EN ISO 7783	m	1,8 ± 0,1 (class I)
CO2 permeability, air thickness SD(CO2) equivalent, thickness 1.0 mm, EN 1062-6	m	265 ± 10
Capillary absorption and water permeability, EN 1062-3	kg/(m²*vh)	0,0030 ± 0,0006
Adhesion for direct traction (on concrete treated with FONDO SL + waste dusting of NATURAL QUARTZ sand 0,3 – 0,9), EN 1542	Mpa	1,7 ± 0,2
Crack bridging, static method A, +23°C, 0.5 mm/min, thickness 1.10 mm, class, EN 1062-7	-	A5
Crack bridging, dynamic B method, +23°C, thickness 1.0 mm, class, EN 1062-7	-	B4.2

Product storage

- 12 months in the original closed packaging, in a dry, covered environment, protected from sunlight and at a temperature between +5°C and +35°C.
- The product is resistant to moisture.

Packages

VARIANT	PACKAGING	ADR	PACK / PALLET	COMPONENTS	NOTE
RAL 6025	(A+B) - 22 kg	SI'	-	A = 11 kg (steel pail) A = 11 kg (steel pail)	-

ADR legend:

NO = NON DANGEROUS goods

P* = DANGEROUS goods packed in limited quantities (packaged as per Chap. 3.4 ADR)

SI = DANGEROUS goods

LEGAL NOTES

Any advice concerning the methods of use of our products reflects the current state of knowledge and does not imply any guarantee and/or responsibility as to the outcome of the application. Consequently, the customer must verify the product's suitability for the intended use and purposes by testing the product in advance. The Internet website www.nordresine.com contains the latest revision of this technical sheet: in case of any doubts, verify the date of revision (where missing, use the date of issue) by consulting the "PRODUCTS" section.

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EDITION

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