

TRAFFIDECK FLEX 2000 SG

Solvent-free, instant cross-linking, two-component polyurea-based waterproof membrane for spray applications



CE marking:

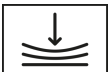
→ EN 1504-2 (C) • Principles: MC-PR-IR



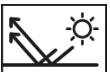
TECHNICAL FEATURES



WATERPROOF



ELASTIC



UV RESISTANT



FROST



IN/OUTDOOR



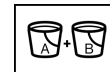
LOW TEMP.



FAST CURING

FIELD OF APPLICATION

APPLICATIONS



2 PART



SPRAY

Description

TRAFFIDECK FLEX 2000 SG is a two-component, solvent-free waterproof membrane based on isocyanates and special flexible amines that are highly reactive and have high physical/mechanical characteristics.

TRAFFIDECK FLEX 2000 SG, which can only be applied by means of specific spray equipment, reticulates and hardens in a few seconds so it can also be applied vertically in the desired thickness.

TRAFFIDECK FLEX 2000 SG:

- maintains a high degree of elasticity over time even at very low temperatures;
- it has excellent tensile strength and high elongation;
- shows very high tear resistance;
- Possesses superior crack-bridging capabilities.

Although it causes significant alteration of colour (yellowing), exposure to solar rays (UV rays) does not affect the waterproofness or mechanical characteristics of TRAFFIDECK FLEX 2000 SG.

CE Marking

► EN 1504-2

TRAFFIDECK FLEX 2000 SG meets the principles defined by EN 1504-9 ("Products and systems for the protection and repair of concrete structures: definitions, requirements, quality control and conformity assessment. General principles for use and systems") and the requirements of EN 1504-2 ("Concrete surface protection systems") for the class:

→ MC-PR-IR

- For Principle 2 (MC) - Moisture control: 2.2 Coating (C), ZA.1e.
- For Principle 5 (PR) - Physical Strength/Surface Improvement: 5.1 Coating (C).
- For Principle 8 (IR) - Increasing Resistivity.

Colour

TRAFFIDECK FLEX 2000 SG is available in GREEN (approx. RAL 6010).

Field of application

TRAFFIDECK FLEX 2000 SG is used in:

- waterproofing of concrete structures, such as roof slabs intended for parking lots, flat roofs, bridge decks, terraces and roof gardens etc.

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- waterproofing of canals, hydraulic works in general, secondary containment tanks, fixed systems for the collection, treatment, adduction and distribution of water intended for human consumption.

TRAFFIDECK FLEX 2000 SG 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 2000 SG is not suitable for creating waterproofing coating on bituminous conglomerates (asphalt carpets).

Advantages

- TRAFFIDECK FLEX 2000 SG gives rise to a membrane with exceptional physical/mechanical properties even at very low temperatures.
- TRAFFIDECK FLEX 2000 SG matures very quickly allowing a quick return to service of the treated surface.
- TRAFFIDECK FLEX 2000 SG can also be applied vertically to the desired thicknesses.
- TRAFFIDECK FLEX 2000 SG gives rise to a membrane with exceptional weather resistance.

Specific preparation of the laying substrate

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

- The substrate must be carefully examined to be sure 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 QUARZO NATURALE 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 2000 SG.

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

- The substrate must be carefully examined to be sure 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 QUARZO NATURALE 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 2000 SG.

► 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 SOLVLINE EPOXY (epoxy thinner) or nitro thinner.
- Proceed with the application of NORPHEN FONDO MA as soon as possible to avoid re-oxidation 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 QUARZO NATURALE sand 0.3 – 0.9 or, alternatively, 0.4 – 0.6.

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- Wait until the next day for the surface to be sanded.
- Vacuum up excess quartz.
- Apply TRAFFIDECK FLEX 2000 SG.
- ▶ *Wooden/OSB/chipboard panels*
 - The substrate must be carefully examined to be sure 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 QUARZO NATURALE 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 2000 SG.
- ▶ *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).
 - Sprinkle on the fresh product with NATURAL QUARTZ sand 0.3 – 0.9 or, alternatively, 0.4 – 0.6.
 - Wait 24 hours before proceeding with the application of TRAFFIDECK FLEX 2000 SG.
- ▶ *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 exactly the preparation procedure described in the previous paragraphs.
 - 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 be sure 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.
 - 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 QUARZO NATURALE 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 2000 SG.

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 info@nordresine.com

Product preparation

- TRAFFIDECK FLEX 2000 SG is formulated exclusively for applications with specific bi-mixer spraying equipment.

The Nord Resine Technical Office can advise on the choice of the type of equipment and on the evaluation of the optimal conditions of application, contact him at info@nordresine.com.

- Both components must be brought to the required temperature and shaken well before use.

Product application

Regardless of the surface preparation process, TRAFFIDECK FLEX 2000 SG must always be applied to surfaces treated with quartz sand waste dusting.

In order to obtain a homogeneous layer of TRAFFIDECK FLEX 2000 SG, waste dusting shall be applied homogeneously.

- For application, use suitable spray equipment equipped with heated hoses.
- Apply with sweeping movements until the required thickness is obtained.
- If you need to apply a further coat of TRAFFIDECK FLEX 2000 SG after 24 hours from the previous one, you must clean the surface and apply the CONSOLID PRIMER (see Technical Data Sheet).

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- TRAFFIDECK FLEX 2000 SG can be applied at temperatures below 0°C as long as it is rising and at least 4°C above the dew point.
- The membrane may be subject to pedestrian traffic after 2 hours.

The waterproofing sheath thus made can be finished in the following ways:

- Armor layer with GRIP 1000, in case of driveway covers.
- Painting with coloured protective finishes, in the case of non-drive-over covers.
- Protection for the subsequent laying of hot-poured road asphalt.

The timing of overapplication of the finishes on the applied sheath are indicated below.

► *Armor layer with GRIP 1000*

- The application of GRIP 1000 (see Technical Data Sheet) must take place within 12 hours of the application of TRAFFIDECK FLEX 2000 SG.

► *Painting with coloured protective finishes*

Within three days of laying TRAFFIDECK FLEX 2000 SG, apply the recommended protective finish (TIPEWALL), in two coats with a roller or in a single coat with a spray gun (see "Consumption" table).

► *Protection for the subsequent laying of hot-poured road asphalt*

- After 2 hours and within 24 hours of applying TRAFFIDECK FLEX 2000 SG (minimum thickness applied: 2 mm) treat the waterproofed surface with CONSOLID PRIMER applied with a roller (consumption: approx. 100 g/m²).
- Wait about 30 minutes (at +23°C and 50%RH) for CONSOLID PRIMER to cross-link.
- Proceed with the roller application of TRAFFIDECK EAP (consumption: approx. 300 g/m²) and, when fresh, sprinkle with NATURAL QUARTZ 0.7-1.2 (consumption: approx. 1.5 kg/m²).
- When TRAFFIDECK EAP has cured, the surface is ready for asphalt laying.

Consumption

type of application	minimum consumption	maximum consumption	u.m.	notes
On all surfaces	1,8	2,0	kg/m ²	-
Roller painting with TIPEWALL or NORDPUR SW coloured finish	0,12	0,15	kg/m ²	(1)
Spray painting with TIPEWALL or NORDPUR SW coloured finish	0,20	0,20	kg/m ²	(2)

(1) For each coat of product.

(2) Applied in a single coat.

Tool cleaning

- 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.

NOTE: for cleaning and inerting spray equipment it is necessary to contact the Nord Resine Technical Office at info@nordresine.com

Technical Data

TRAFFIDECK FLEX 2000 SG

► PRODUCT IDENTIFICATION DATA		value
Density at 23°C (Component A), EN ISO 2811-1	kg/L	1,02 ± 0,02
Density at 23°C (component B), EN ISO 2811-1	kg/L	1,12 ± 0,02
Appearance (Component A)	-	Yellow opaque liquid
Appearance (Component B)	-	Transparent blue liquid
Brookfield apparent dynamic viscosity (23°C / 50% RH; spindle ASTM#3, 200 rpm), comp. A, EN ISO 2555)	mPa·s	500 ± 10
Brookfield apparent dynamic viscosity (23°C / 50% RH; spindle ASTM#3, 50 rpm), comp. B, EN ISO 2555)	mPa·s	2000 ± 50
Dry residue (125°C, 1 hour), Component A, ISO 3251	-	> 99
Dry residue (125°C, 1 hour), Component B, ISO 3251	-	> 99
► APPLICATION DATA AND FINAL PERFORMANCE		value
Mixing ratio by weight (A:B)	-	0,91 : 1,00
Mixing ratio in volume (A:B)	-	1 : 1
Gel time	s	7 ± 2
Pot-life (viscosimetric), EN ISO 9514	s	10 ± 2
Surface drying time (+23°C, 50%RH), EN ISO 9117-3	Min	3 ± 1
Minimum application temperature	°C	0 (provided they are rising and at least 4°C above the dew point).
Maximum application temperature	°C	+70
Minimum cold bending temperature, BS 2782-1 method 150B	°C	-40
Time interval for covering with subsequent treatments	Hours	2 – 24
Set to foot traffic, +23°C, 50%RH	Hours	2
Minimum waiting time for opening to light traffic, +23°C, 50%RH	Hours	8
Complete curing time, thickness 1.8 mm, at +23°C, 50%RH	Hours	24
Shore A hardness (maturation 7 days at +23 °C, 50 %RH), DIN 53505	-	(85 ± 3)°
Tensile strength at +23 °C, thickness = 1.8 mm, 2.5 mm/min, EN ISO 527-3	Mpa	12,3 ± 0,3
Elongation at break (traction) at +23 °C, thickness = 1.8 mm, 2.5 mm/min, EN ISO 527-3	-	(320 ± 20)%
Tear resistance (trouser specimen method), ISO 34-1	N/mm	40 ± 3
Thermal conductivity, λ, EN 12667	W/(m·K)	0,14 ± 0,03
Pull-off on sandblasted steel SA2,5, EN ISO 4624	Mpa	> 7

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► TECHNICAL DATA IN ACCORDANCE WITH EN 1504-2		value
Water vapour permeability, SD equivalent air thickness, thickness 1.7 mm, EN ISO 7783	m	2,7 ± 0,3 (class I)
Water vapour permeability, μ , thickness 1.7 mm, EN ISO 7783	-	1400 ± 50
Capillary absorption and water permeability, EN 1062-3	kg/(m ² ·√h)	0,08 ± 0,01
Adhesion for direct traction (on concrete treated with FONDO SL + waste dusting of NATURAL QUARTZ sand 0,3 – 0,9), EN 1542	Mpa	3,1 ± 0,3
Crack bridging ability, static method A, +23°C, 0.5 mm/min, thickness 1.8 mm, class, EN 1062-7	-	A4
Crack bridging ability, dynamic B method, -20°C, thickness 1.8 mm, class, EN 1062-7	-	B3.1
Impact resistance (class), measured on MC coated concrete samples (0.40) according to EN 1766, EN ISO 6272-1	N-m	> 20 (Class III)
Wear resistance – Taber method, grinding wheel H22, 1000 rpm, load 1 kg, EN ISO 5470-1	Mg	2200 ± 200
Wear resistance – Taber method, grinding wheel CS17, 1000 rpm, load 1 kg, EN ISO 5470-1	Mg	12 ± 3
Reaction to fire (Euro-class), EN 13501-1	-	And

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► **CHEMICAL RESISTANCE EN ISO 2812-1 (method 2): 1 = disintegration of the product, 5 = no alteration. NOTE: For the full scale see Appendix A**

	value (1)	value
Water	5	5
Ethyl acetate	2	4
Acetone	1	3
Acetic acid (10% aqueous solution)	1	3
Citric acid (10% aqueous solution)	4	5
Hydrochloric acid (10% aqueous solution)	3	5
Phosphoric acid (50% aqueous solution)	2	5
Lactic acid (aqueous solution 10%)	3	5
Sulphuric acid (10% aqueous solution)	3	4
Sulphuric acid (5% aqueous solution)	5	5
Stearic acid (50% aqueous solution)	5	5
Hydrogen peroxide (5% aqueous solution)	2	5
Alkyl benzene sulfonates (anionic surfactants)	5	5
Ammonia (aqueous solution 30%)	5	5
Gasoline (for transport)	1	3
Commercial bleach (sodium hypochlorite 5%)	1	5
Solvay soda (NaCO ₃ aqueous solution 20%)	5	5
Sodium chloride (10% aqueous solution)	5	5
Dimethylformamide (DMF)	1	1
Hexane	1	5
Heptane	1	5
Ethanol (99%)	1	4
Ethyl acetate	1	4
Fertilizer (urea-based)	5	5
Diesel (Diesel fuel)	5	5
Isooctane	2	5
Isopropanol	1	4
Hydraulic brake fluid	1	1
Methanol	1	3
Methyl ethyl ketone (MEK)	1	3
Olive oil	5	5
Propylene carbonate	1	1
Sugar syrup (aqueous solution saturated with sucrose)	5	5
Caustic soda (NaOH aqueous solution 40%)	4	5
Sodium bicarbonate (solid)	5	5
Sodium triphosphate (E451)	5	5
Water/vinegar solution (5% aqueous solution)	5	5
Toluene	1	3
Xylene	1	4

NOTES

- (1) Continuous Contact: continuous stay of the substance in contact with the membrane surface.
 (2) Incidental Contact: discontinuous contact of the substance with the membrane surface for time intervals of less than 2 hours followed by complete removal of the substance and rinsing with water and solvent-free neutral hard surface detergent.

Product storage

- 12 months in the original sealed packaging, in a dry, covered area, protected from direct sunlight and at a temperature between +5°C and +30°C.

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- Before each use, shake the drums well.

Packaging

VARIANT	PACKAGE	ADR	PACKAGE / PALLET	COMPONENTS	NOTES
-	(A+B) - 420 kg	SI'	-	A = 200 kg (steel drum) B = 220 kg (steel drum)	

ADR legend:

NO = NON-DANGEROUS goods

P* = DANGEROUS goods packed in limited quantities (packed as per ADR Chapter 3.4)

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.

EDITION

Issue: 02.04.2007

Revision: 13.02.2025