



## NORDPUR SW

Water-based bi-component coloured polyurethane top coat for protective coatings in interiors and exteriors

Marcatura CE:

- EN 13813 - Designation: SR-B2.0-AR0.5-IR4
- EN 1504-2 (C) - Principles: MC-IR

Certifications:

- UNI 11021 - HACCP
- ISO 14644-1 - Class: ISO 5
- ISO 11998 - Classe: 1



### TECHNICAL SPECIFICATIONS



### FIELD OF APPLICATION



### APPLICATIONS



### Description

NORDPUR SW is a water-based product made up of two liquid components:

- Component A: a mixture of functionalised emulsified pre-polymers, additives and fillers;
- Component B: hydrophilic pre-polyisocyanate.

When mixed and cured at room temperature, the two components give rise to a flexible and tough material.

When applied to various types of surfaces, the product creates a smooth coating that withstands weathering and abrasion.

The product is a coating that does not suffer any substantial colour alteration over time.

### CE marking

? EN 13813

NORDPUR SW complies with the principles envisaged in the EN 13813 standard ("Screed material and floor screeds - Screed materials: Properties and requirements") with the following designation:

? SR - B2,0 - AR0,5 - IR4

- Synthetic resin screed (SR)
- Adhesion strength: 3,8 MPa (B2,0)
- wear resistance BCA: 23 micron (AR0,5)
- impact resistance: 4 N•m (IR4).

? EN 1504-2

NORDPUR SW 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:

? MC-IR

- For Principle 2 (MC) - Humidity control: 2.2 Coating (C).
- Per il Principio 8 (IR) - Resistance increase through the limitation of the humidity content: 8.2

# NORDPUR SW

Coating (C).R) - Aumento della resistività mediante limitazione del contenuto di umidità: 8.2 Rivestimento (C).

---

## Certifications

? ISO 11998-1

Resistance to abrasion when wet (washability) in compliance with the EN ISO 11998 standard, 200 cycles, Ldft (value of the loss of dry film thickness):

? Class 1:  $0,28 \pm 0,05$  ?m

? UNI 11021

NORDPUR SW, applied and cured according to the instructions given in the "Technical data" table, can be used as a coating for environments containing foodstuffs (Test Report No. 342563 issued by the ISTITUTO GIORDANO, in compliance with the UNI 11021 standard "Products and systems for coating of environments containing foodstuffs").

- NORDPUR SW is suitable for all surfaces that must withstand both washing and mould build-up.
- NORDPUR SW is suitable for being washed with detergents which have an active chlorine base (type A detergent).
- NORDPUR SW is suitable for being washed with alkaline degreaser (type B detergent).
- NORDPUR SW is suitable for being washed with acid descaler (type C detergent).
- NORDPUR SW is suitable for surfaces that need to be disinfected (type D detergent).
- NORDPUR SW is suitable for cold rooms.

? ISO 14644-1

NORDPUR SW is certified in class ISO 5 (certificate No. NO 1405-708 issued by Fraunhofer IPA) as per ISO 14644-1 "Cleanrooms and associated controlled environments - Classification of air cleanliness".

---

## Colour

NORDPUR SW is available in a wide range of colours and also in the neutral version (COLOURABLE), to be pigmented with the relevant WATER-based colouring pastes of the NR W COLOUR MIXING SYSTEM or with the relevant NR W PREMIX PASTE.

We can also make colours on specific request.

For information, contact the Nord Resine Technical Service at [color@nordresine.com](mailto:color@nordresine.com).

The shades of NORDPUR SW do not change or alter over time.

---

## Field of application

NORDPUR SW is ideal for finishing and protection on the following materials:

- traditional plasters;
  - concrete;
  - plasterboard walls;
  - walls made of cement or silicate hydrophobicised panels;
  - resins of various types;
  - waterproofing system with BETONGUAINA or BETONGUAINA.S;
  - epoxy resin, epoxy-cement or polyurethane resin coatings on floors and walls;
  - floors made of concrete or cement screeds.
- 

## Advantages

- NORDPUR SW is suitable for walls and floors, indoors or outdoors.
  - NORDPUR SW possesses high resistance to weathering and does not yellow over time.
  - NORDPUR SW is suitable for all surfaces that must be resistant against washing and mould build-up.
  - NORDPUR SW is suitable for surfaces that are subject to disinfection cycles (type "D" detergent, as defined in the UNI 11021 standard).
  - NORDPUR SW can be washed with various types of detergent: disinfectants with an active chlorine base, alkaline degreasers, acid descalers.
  - NORDPUR SW is suitable for cold rooms.
- 

## Specific preparation of the laying support

---

# NORDPUR SW

? As a top coat for BETONGUAINA and BETONGUAINA.S

- Wait at least 48 hours after the end of the waterproofing cycle to allow the coating to reach an adequate level of curing;
- Apply NORDPUR SW directly onto the waterproofing coating in two coats, with an interval of a few hours in between, using a roller, block brush or by spraying.

? As a top coat for resin coatings

- Make sure that the laying surface is perfectly dry (at least 24 hours after laying) and clean.
- Smooth the surface with a 180 abrasive mesh.
- Perfectly remove all dust from the sanded surface.
- Proceed with the application of NORDPUR SW.

? Metal surfaces

- Sandblast the surface (if it is rusted steel) with grade SA 2.5 sandblasting;
- Apply NORPHEN FONDO MA (see the Technical Data Sheet) as a base coat with high anti-corrosion properties.
- Wait for the base coat to dry (i.e. at least 24 hours after application).
- Apply two coats of NORDPUR SW.

? New concrete surfaces

- The support must be carefully examined to ensure that it is a suitable and structurally sound base.
- Before applying NORDPUR SW, check the wettability of the concrete, as it may be compromised by the presence of water-repellent substances (oil or heavy hydrocarbons) sometimes used for polishing or by the presence of curing agents.
- In this case, wash the surface with an alkaline detergent such as DESMOG A gel (see the Technical Data Sheet) and then thoroughly rinse with water.
- Treat the washed surface with SW SOLID diluted with 5 parts of water (see the Technical Data Sheet).
- After 12–24 hours apply NORDPUR SW.

? Old concrete surfaces

- Remove from the concrete surface all dust, soiling, waxes and greasy substances by washing with STRIPPER (see the Technical Data Sheet) and a single-disc floor scrubber fitted with an abrasive disc.
- Remove the waste liquid from the washing.

Rinse

- Wash the surface with hot water and detergent for hard surfaces.
- Rinse thoroughly.

? Superfici in calcestruzzo inquinate da olio, sostanze grasse o vernici

- In the event of concrete that is fouled with oil, old adhesives or paints, efflorescence, rust, mould and other foreign matter, perform diamond-wheel grinding with a finishing grinder (to prevent the surface from getting too coarse).
- Repair any holes or depressions with MALTAFIX or W3 IMPERMEABILIZZANTE (see the Technical Data Sheet).
- Consolidate the surface with SW SOLID diluted with 4 parts of water (see the Technical Data Sheet).
- After 12–24 hours apply NORDPUR SW.

? Surfaces coated with W3 IMPERMEABILIZZANTE

Surfaces coated with W3 IMPERMEABILIZZANTE can be coated directly after 24 hours from applying the last coat.

? Porous or micro-porous supports

- Treat the surface with SW SOLID diluted with 3–5 parts of water (see the Technical Data Sheet).
- After 12–24 hours apply NORDPUR SW.

---

## Preparing the product

- Open the container of component A and mix the contents with a professional mixer at low speed.
- Shake the can containing component B.
- Pour component B into the container of component A and mix them using a professional mixer.
- Dilute the A+B mix by adding 10–20% in weight of water according to the required fluidity.

NOTE: bear in mind that increasing the dilution causes the product's potential coverage to decrease.

# NORDPUR SW

- Apply the product.

## Application of the product

- NORDPUR SW can be applied as it is with a roller, brush or air-based or airless sprayer.
- Apply the product in a single coat, or two coats, waiting 6–8 hours in between each coat.

NOTE: any one of the waxes in the “SEAL WAX” series can be applied on NORDPUR SW (see the Technical Data Sheet) as a protective finish.

## Consumption

type of application	minimum consumption	maximum consumption	UoM	dilution
For 1 coat applied with a roller	0,10	0,11	kg/m <sup>2</sup>	+10% in peso d'acqua su (A+B)

## Cleaning of tools

- Wet product: clean with water (including a power wash).
- Hardened product: remove mechanically, use special paint strippers (GEL STRIPPER or FLUID STRIPPER) or a thermal gun.

## Useful application tips

- Do not exceed the indicated consumption per coat.
- An excessive amount of product can cause difficulties and lack of evenness in the cross-linking and reduce the final mechanical resistance.
- Protect the treated support against rain during the first 12–24 hours after application.
  - Do not apply NORDPUR SW at temperatures below +8°C.
  - Application outdoors must be suspended if rain, snow, frost or fog is expected.
  - Keep the container of component B perfectly closed during the preliminary operations, as it is sensitive to atmospheric humidity.
  - Read the Safety Data Sheet carefully.

## Technical data

? PRODUCT IDENTIFICATION DATA	UoM	value
Density at 23°C (Component A), EN ISO 2811-1	kg/L	1,27 ± 0,02
Density at 23°C (Component B), EN ISO 2811-1	kg/L	1,091 ± 0,004
Density at 23°C (A+B mix), EN ISO 2811-1	kg/L	1,15 ± 0,04
pH (potentiometric method) at 23°C, comp. A, ISO 4316	-	8,0 ± 0,5
Colour (Component A)	-	Coloured liquid with a characteristic smell
Colour (Component B)	-	Transparent liquid with a solvent smell

? APPLICATION DATA AND FINAL PERFORMANCES	UoM	Value
Mix ratio by weight (A:B)	-	5,2 : 1,0
Kinematic viscosity (ISO cup 6, 23°C), A+B+10% water, EN ISO 2431	s	60 ± 8
Pot-life (viscometric), A+B viscosity doubling, EN ISO 9514	min	40 ± 5
Surface drying time (23°C, 50% R.H.), EN ISO 9117-3	min	90 ± 15
Walk-over time, +23°C, 50% R.H.	hours	8 ± 2
Full curing time (at +23°C, 50% R.H.)	days	7
Resistance to UV and condensate cycles, cycle A (8 hours UVA-340 + 4 hours condensate 50°C), for a total of 168 hours, measurement of yellowing, ?E, ASTM D 4329	-	1,0 ± 0,2
Resistance to UV and condensate cycles, cycle A (8 hours UVA-340 + 4 hours condensate	-	-5 ± 1

# NORDPUR SW

? APPLICATION DATA AND FINAL PERFORMANCES	UoM	Value
50°C), for a total of 168 hours, measurement of opacification, ?Gloss, ASTM D4329		
Wear resistance – Taber Method, CS17 grinding wheel, 1,000 revolutions, 1 kg load, expressed for 100 revolutions, EN ISO 5470-1	mg	92 ± 6
Surface gloss, gloss 60°, on fibre cement, EN ISO 2813	-	35 ± 5
Surface gloss, gloss 60°, on fibre cement, EN ISO 2813	-	60 ± 5
Minimum film-forming temperature (MFFT), ISO 2115	°C	+5
Permeability to water vapor (μ), metodo dry cup, film libero spessore 0,15 ± 0,02 mm, DIN 52615	-	4700 ± 500
Impermeability to water, testing time 24 hours, EN 1928	kPa	> 500
buchholz hardness D, A+B, maturazione 7 giorni a +23°C, 50 %UR, EN ISO 2815	-	35 ± 5 Classe 1
Washing resistance (brush method), 200 cycles, Ldft, EN ISO 11998	?m	0,28 ± 0,05 (classe 1) Classe 1

? TECHNICAL DATA IN CONFORMITY TO UNI 11021	UoM	value
Dirt adhesion (?L), UNI 10792	-	< 0,5
Odour transfer (Appendix A), UNI 11021	-	< 0,5
Washing resistance, UNI 10560	-	> 5000
Cleanability (?E, Appendix B), UNI 10021	-	< 0,5
Resistance to special washing agents: type-A detergent (active chlorine), EN ISO 2812-1	-	No alteration
Resistance to special washing agents: type-B detergent (alkaline degreaser), EN ISO 2812-1	-	No alteration
Resistance to special washing agents: type-C detergent (acidic anti-fouling agent), EN ISO 2812-1	-	No alteration
Resistance to disinfection agents type D disinfectants, EN ISO 2812-1	-	No alteration
Thermal shock resistance (Appendix D), 10 cycles in water 2 hours at -20°C, 2 hours at +20°C, UNI 11021	-	No alteration
Anti-mould power, fungal development index from 0 to 4, Appendix C, UNI 11021	-	0 (no development)
Anti-mould power, Penicillium SPP strain, fungal development index from 0 to 4, Appendix C, UNI 11021	-	0 (no development)

? TECHNICAL DATA IN CONFORMITY with EN 13813, thickness 0.12 ± 0.03 mm in 2 coats	UoM	value
Bond strength, EN 13892-8	MPa	3.8 ± 0.6 (substrate fracture)
BCA wear resistance, depth of wear, EN 13892-4	?m	23 ± 4 (Class AR 0,5)
Impact resistance (class), measured on specimens of concrete coated with MC (0.40) as per EN 1766, EN ISO 6272-1	N•m	4,0 ± 0,5 (Class IR 4) Classe IR 4
Cleanrooms and associated controlled environments: Classification of air cleanliness by particle concentration ISO 14644-1	-	ISO 5 Classe IR 4

? TECHNICAL DATA IN CONFORMITY TO EN 1504-2	UoM	value
Permeability to water vapour, equivalent air layer thickness SD, thickness 0.11 ± 0.02 mm, porous substrate, EN ISO 7783	m	0,45 ± 0,03 Classe I
Capillary absorption and permeability to water, EN 1062-3	kg/(m²•?h)	0,070 ± 0,005
Direct tensile adhesion, EN 1542	MPa	3,8 ± 0,6 (substrate fracture)

? CHEMICAL RESISTANCE EN ISO 2812-3	UoM	value
Hydrochloric acid 30% in water	-	4
Sulphuric acid 10% in water	-	4
Phosphoric acid 20% in water	-	3
Acetic acid 30% in water	-	1
Ammonia 15% in water	-	5
Soda (sodium hydroxide) 30% in water	-	2
Hydrogen peroxide 3.5% (12 volumes)	-	4
Mixture of acetic acid (1%) and hydrogen peroxide (0.5%) in water	-	5
Denatured ethyl alcohol	-	4

# NORDPUR SW

? CHEMICAL RESISTANCE EN ISO 2812-3	UoM	value
Technical acetone	-	4
(1 = disintegration of the product, 5 = no alteration; for the complete scale, refer to Table 1, Appendix A)		

## Storage of the product

- 12 months in the closed original packaging, in a dry and covered place away from direct sunlight, at a temperature between +5°C and +30°C.
- Protect the product against frost.

## Packages

VARIANT	PACKAGE	ADR	PACKAGES FOR PALLETS	COMPONENTS
RAL 7040	kit (A+B) - 6,2 kg	P*	-	A = 5,2 kg – drum B = 1 kg – can
RAL 7040	(A+B) - 18,6 kg	YES	-	A = 15,6 kg – drum B = 3 kg – metal can
COLOURABLE (1)	kit (2A+2B) - 1,58 kg	P*	-	A = 0,64 kg – tin B = 0.15 kg – metal can
COLOURABLE (2)	kit (A+B) - 5,3 kg	P*	-	A = 4,3 kg – drum B = 1,0 kg – can
COLOURABLE (3)	(A+B) - 15,9 kg	YES	-	A = 12,9 kg – drum B = 3,0 kg – metal can
TRANSPARENT	kit (A+B) - 4,5 kg	NO	-	A = 3,5 kg – jug B = 1,0 kg – can
TRANSPARENT	(A+B) - 13,5 kg	NO	-	A = 10,5 kg – jug B = 3,0 kg – metal can
TIER 1 COLOUR	kit (A+B) - 6,2 kg	P*	-	A = 5,2 kg – drum B = 1 kg – can
TIER 1 COLOUR	(A+B) - 18,6 kg	YES	-	A = 15,6 kg – drum B = 3 kg – metal can
TIER 2 COLOUR	kit (A+B) - 6,2 kg	P*	-	A = 5,2 kg – drum B = 1 kg – can
TIER 2 COLOUR	(A+B) - 18,6 kg	YES	-	A = 15,6 kg – drum B = 3 kg – metal can
TIER 3 COLOUR	kit (A+B) - 6,2 kg	P*	-	A = 5,2 kg – drum B = 1 kg – can
TIER 3 COLOUR	(A+B) - 18,6 kg	YES	-	A = 15,6 kg – drum B = 3 kg – metal can
TIER 4 COLOUR	kit (A+B) - 6,2 kg	P*	-	A = 5,2 kg – drum B = 1 kg – can
TIER 4 COLOUR	(A+B) - 18,6 kg	YES	-	A = 15,6 kg – drum B = 3 kg – metal can

### legend

P\* = merce PERICOLOSA imballata in quantità limitata (confezionata come da Cap. 3.4 ADR)

SI' = merce PERICOLOSA

NO = merce NON PERICOLOSA

(1): Box containing 2 x 0.79 kg (A+B) kits of colourable product. To colour component A (0.64 kg), add 0.14 kg of pigmented pastes of the WATER-BASED COLOUR MIXING SYSTEM.

(2): To colour component A (4.3 kg), add 0.9 kg of pigmented pastes from the WATER-BASED COLOUR MIXING SYSTEM.

(3): To colour component A (12.9 kg), add 2.7 kg of pigmented pastes from the WATER-BASED COLOUR MIXING SYSTEM.

## LEGAL NOTES

Advice on how to use our products corresponds to the current state of our knowledge and does not involve the assumption of any guarantee and / or responsibility for the final result of the work. They do not refore exempt the customer from the responsibility of verifying the suitability of the products for the use and the prefixed purposes through preventive tests. The website [www.nordresine.com](http://www.nordresine.com) contains the latest revision of this datasheet.

# NORDPUR SW

## EDITION

Emissione: 18.12.2002

Revisione: 18.02.2020