

NORDSEAL WX

Expanding bentonite waterproofing waterstop for casting joints



TECHNICAL SPECIFICATIONS



FIELD OF APPLICATION



APPLICATIONS



Description

NORDSEAL WX is a water-expanding prefabricated cord formulated with natural sodium bentonite and special organic binders.

Thanks to its composition, NORDSEAL WX has a flexible consistency, can be easily worked even at low temperatures and is easy and quick to apply by simple nailing (see "Application").

No special preparations are required on the laying surface (smoothing or modelling), nor metal confinement reinforcements.

NORDSEAL WX is practically insensitive to water present in the freshly cast concrete. This guarantees that the cord does not start expanding prematurely, deforming the concrete while it is still hardening.

In the presence of water from outside the structure, NORDSEAL WX expands autonomously (by absorption) up to 4–6 times compared to the initial volume, thus guaranteeing perfect hydraulic tightness of both horizontal and vertical casting joints.

NORDSEAL WX withstands deformation of the structures to which it is applied even for long periods after application.

NORDSEAL WX easily withstands continuous hydration-dehydration cycles, retaining its expansivity over time.

NORDSEAL WX retains a strong consistency and does not wash away even when it expands freely in water.

Colour

NORDSEAL WX is available in MARRONE SCURO.

Field of application

NORDSEAL WX is used for:

- waterproof the horizontal and vertical casting joints, sealing both the cavities due to concrete shrinkage and those due to the structure's movements;
- stop water ingress during repair interventions.

Advantages

• NORDSEAL WX is easy to lay simply by nailing and does not require any special preparation of the laying surface nor the use of metal cages or meshes.

NORDSEAL WX is not dangerous for the installer.

• NORDSEAL WX is insensitive to the mix water of the fresh concrete with which it comes into contact.

• NORDSEAL WX has an extremely high expansive power.

• NORDSEAL WX retains its sealing characteristics over time.

NORDSEAL WX is able to withstand considerable deformation of the structure.

• NORDSEAL WX is resistant to washing out.

General preparation of the laying support

Laying of NORDSEAL WX does not require any special preliminary operations (smoothing, creation of specific housings, etc.).

It is simply sufficient to remove from the application surface any loose materials such as protruding concrete, sand, shavings or other foreign matter.

Preparing the product

NORDSEAL WX is ready to use.

NORDSEAL WX

Application of the product

► Casting overlays

- Place NORDSEAL WX in the centre of the laying surface or in the position defined in the project.
- Adapt the cord to the support by exerting light pressure with the hand, using a hammer with broad base or by striking with a hammer a wooden block resting on the cord.
- Fasten the cord by nailing it (manually or with a mechanical nail gun) using steel nails, roughly one every 25 cm.

Precautions for the correct positioning of NORDSEAL WX:

- guarantee a concrete cover at least 8 cm thick over the cord;
- make sure that the cord is at least 4 cm away from the rebars;
- the spacers for formwork must remain at least 7 cm away from the cord;
- the various sections of NORDSEAL WX are joined by simply drawing together laterally the ends for 5 cm.

► Blocking of water ingress

- Open a dovetail groove near the crack to be sealed and carefully eliminate any dust and inconsistent parts.
- Prepare a section of NORDSEAL WX sized according to the fissure to be sealed.
- Insert the cord into the slit and press until it adheres perfectly to the bottom.
- Seal the crack with NORDPLUG (see Technical Sheet), a ultra-rapid-setting cement-based sealant.

Consumption

type of application	minimum consumption	maximum consumption	UoM	dilution
-	-	-	-	-

Useful application tips

- Guarantee a minimum coverage of the cord with at least 8 cm of concrete to prevent the mechanical pressure due to expansion from damaging the concrete itself.
- Do not use NORDSEAL WX to seal expansion joints.
- For the first 15–20 days after casting the successive layer, avoid water stagnation near the joint where NORDSEAL WX is installed, to prevent premature expansion.
- During winter, do not apply directly on ice.
- If the product is applied with imminent rain, protect NORDSEAL WX as far as possible against contact with water.
- To use NORDSEAL WX on structures in contact with heavily contaminated areas (zones to be cleaned up, industrial zones, etc.), consult the Nord Resine technical department.

Technical data

► PRODUCT IDENTIFICATION DATA	UoM	value
Density at 23°C, EN ISO 1183-1	kg/L	1,63 ± 0,05
Sodium bentonite content (by weight)	-	(76 ± 1)%
Colour	-	Dark brown
Cord section	mm	Rectangular 15 x 30
Specific weight per unit of length	kg/m	0,73 ± 0,02
► APPLICATION DATA AND FINAL PERFORMANCES	UoM	Value
Application temperature	°C	From -20 to +50
Operating temperature	°C	From -40 to +100
Elongation at break by traction, traction speed 50 mm/min, ASTM D638	-	(220 ± 20)%
Tensile rupture load, traction speed 50 mm/min, ASTM D638	MPa	0,56 ± 0,05
Pressure generated by bulge, expansion hampered, at 10 days	kPa	1600 ± 100
Free volumetric expansion in water (with respect to the initial volume)	-	(500 ± 100)%
Permeability to water with ascending flow (triaxial cell), DIN 18130	mm/anno	0,00305 ± 0,00002
Time for reaching maximum expansion in soft water (22°f)	days	6

NORDSEAL WX

Storage of the product

- Unlimited in the closed original packaging in a dry and covered place protected against direct sunlight, at a temperature between +5°C and +30°C.
- Protect the product against humidity.

Packages

VARIANT	PACKAGE	ADR	PACKAGES PER PALLET	COMPONENTS
-	25 m box	NO	24 scatole	

Legenda ADR:
NO = merce NON PERICOLOSA

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 contains the latest revision of this datasheet.

EDITION

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