

NORDSEAL MS

Coloured, anti-mould, MS-based elastic sealant

CE	FAÇADE SEALANTS
	EN 15651-1
CLASS	
F-EXT-INT-CC-25LM	
CE	SEALANTS FOR SANITARY JOINTS
	EN 15651-3
CLASS	
XS1	
CE	SEALANTS FOR PEDESTRIAN WALKWAYS
	EN 15651-4
CLASS	
PW-EXT-INT-CC-25LM	
CON FOR MITY	REACTION TO FIRE
	EN 13501-1
CLASS	
E	

CE marking:

→ EN 15651-1 • Class: F-EXT-INT-CC-25LM

→ EN 15651-3 • Class: XS1

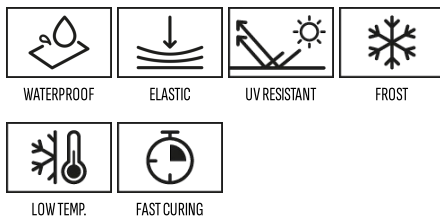
→ EN 15651-4 • Class: PW-EXT-INT-CC-25LM

Certifications:

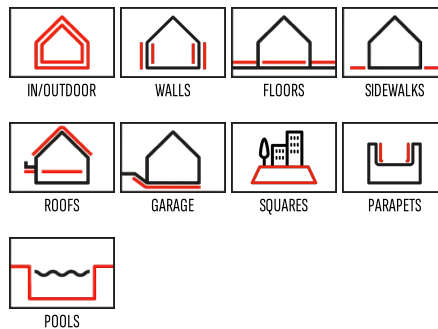
- EN 13501-1 • Class: E



TECHNICAL FEATURES



FIELD OF APPLICATION



APPLICATIONS



Description

NORDSEAL MS is a single-component hygro-hardening sealant free of isocyanates and silicone based on silane-terminated hybrid polymer, with low elastic modulus, high resistance to mold, yellowing, aging, low and high temperatures.

NORDSEAL MS It is easy and clean to apply and forms a perfectly waterproof, waterproof and weatherproof seal.

NORDSEAL MS cross-wires rapidly and gives rise to a highly elastic polymer that adheres perfectly to most substrates.

NORDSEAL MS guarantees resistance to mold growth.

NORDSEAL MS does not yellow in case of natural and artificial lighting.

CE Marking

NORDSEAL MS

► EN 15651-1

NORDSEAL MS fulfils the requirements of the EN 15651-1 standard "Sealants for joints for non-structural use in buildings and walkways - Part 1: Sealants for facade elements" with the following final performances:

→ *F-EXT-INT-CC, 25LM*

- Sealant for façade elements (F)
- Outdoor and indoor application (EXT-INT)
- Cold Weather (CC)
- Elastic recovery: $\geq 70\%$ - Flow resistance: ≤ 3 mm - Secant modulus at 23°C: ≤ 0.4 MPa - Secant modulus at -20°C: ≤ 0.6 MPa - No rupture in retained extension - Perfect adhesion/cohesion at varying temperatures - Perfect adhesion/cohesion in retained extension after immersion in water - Volume loss: $\leq 10\%$ (Class 25LM).

► EN 15651-3

NORDSEAL MS meets the requirements of EN 15651-3 "Joint sealants for non-structural use in buildings and walkways - Part 3: Sealants for joints for sanitary use" with final performance:

→ *XS1*

- Intensity of growth of microorganisms: 0.

► EN 15651-4

NORDSEAL MS meets the requirements of EN 15651-1 "Sealants for joints for non-structural use in buildings and pedestrian walkways - Part 4: Sealants for pedestrian walkways" with final performance:

→ *PW-EXT-INT-CC, 25LM*

- Sealant for pedestrian walkways (PW)
- Outdoor and indoor application (EXT-INT)
- Cold Weather (CC)
- Elastic recovery: $\geq 70\%$ - Flow resistance: ≤ 3 mm - Secant modulus at 23°C: ≤ 0.4 MPa - Secant modulus at -20°C: ≤ 0.6 MPa - No breakage in retained extension - Perfect adhesion/cohesion at varying temperatures - Perfect adhesion/cohesion in retained extension after immersion in water - Volume loss: $\leq 10\%$ (Class 25LM) - Tear resistance: no breakage

Colour

NORDSEAL MS is available in the colors of the folder "I COLORI DEI FUGANTI", coordinated with the cementitious and epoxy groutings produced by NORD RESINE.

Field of application

NORDSEAL MS is suitable for sealing non-porous and stainless surfaces such as ceramic, glass and anodized aluminum.

With appropriate adhesion promoter (see Table 1) it can also be used on concrete, wood, painted substrates and some plastics.

NORDSEAL MS is used for:

- Sealing in sanitary areas between sinks, sanitary fixtures and fixtures and ceramics in bathrooms, showers, kitchens and generally in environments with high humidity and where resistance to detergents and rubbing is required.
- Sealing in swimming pools and fountains.
- Sealing of joints in terraces, balconies, solar panels and outdoor pavements subject to pedestrian walkways.
- Elastic coupling of flashings and gutters made of copper, normal and pre-painted galvanized sheet, stainless steel of all types, anodized aluminum after cleaning from greasy and heavy substances with BETONSEAL CLEANER.
- Sealing of joints in external walls, perimeter joints of doors and windows.
- Bonding of lightweight elements.

General preparation of the laying surface

The laying surfaces must be compact, clean and dry, free of incoherent parts, free from dust, oils, greases, waxes, rust and old paints.

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Specific preparation of the laying substrate

To perform the correct type of PRIMER/SURFACE TREATMENT according to the SUPPORT to be sealed/glued, refer to Table 1:

	<u>Substrate</u>	<u>Surface treatment</u>
POROUS MATERIALS	<u>cement</u>	NORPHEN FONDO IGRO
	<u>grès, klinker</u>	<u>direct application</u>
	<u>brick</u>	NORPHEN FONDO IGRO
	<u>untreated wood</u>	NORPHEN FONDO IGRO
METALS	<u>anodized aluminum</u>	<u>direct application</u>
	<u>aluminum</u>	<u>sanding + BETONSEAL PRIMER</u>
	<u>steel</u>	<u>direct application</u>
	<u>stainless steel</u>	<u>direct application</u>
	<u>galvanized sheet metal</u>	<u>sanding + BETONSEAL PRIMER</u>
PAINTED OR GLASSY SURFACES	<u>painted sheet metal</u>	<u>sanding + BETONSEAL PRIMER</u>
	<u>painted aluminum</u>	<u>sanding + BETONSEAL PRIMER</u>
	<u>painted wood</u>	<u>sanding + BETONSEAL PRIMER</u>
	<u>glass</u>	<u>direct application</u>
	<u>glass mosaic</u>	<u>direct application</u>

	<u>Substrate</u>	<u>Surface treatment</u>
PLASTICS ELASTOMERS	<u>Rigid PVC</u>	BETONSEAL PRIMER
	<u>Plasticized PVC</u>	(see Note)
	<u>vetroresina</u>	<u>sanding</u>
	<u>methacrylate (e.g. Plexiglass®)</u>	(see Note)
	<u>polycarbonate (e.g. Lexan®)</u>	<u>unsuitable surface</u>
	<u>PS or PU foam</u>	<u>direct application</u>
	<u>ABS</u>	BETONSEAL PRIMER
	<u>EPDM</u>	<u>unsuitable surface</u>
	<u>PP (polypropylene, e.g. Moplen®)</u>	<u>unsuitable surface</u>
	<u>PE (polyethylene)</u>	<u>unsuitable surface</u>
	<u>melamine faced boards</u>	<u>direct application</u>

Tab. 1: PRIMER / SURFACE TREATMENT depending on the SUPPORT to be sealed/glued.

Legenda:

NOTE: limited use only, please check before final application.

► Rule of thumb for sealing joints

- The sealant should only adhere to the walls of the joint and not to the bottom. To achieve this condition, it is recommended to insert FILTENE (see Technical Data Sheet), a non-stick and flexible profile in expanded polyethylene (EPE), into the bottom of the joint.
- Adjust the depth (P) of the seal according to the width (L) of the joint to be sealed according to the following simple rules:

L	P
0 mm < L ≤ 10 mm	P = L
10 mm < L ≤ 20 mm	P = 10 mm
L > 20 mm	P = L/2

L = joint width [mm]; P = joint depth [mm].

- For exact edge profiling, it is recommended to mask with adhesive tape, which must be removed immediately after application.

Product preparation

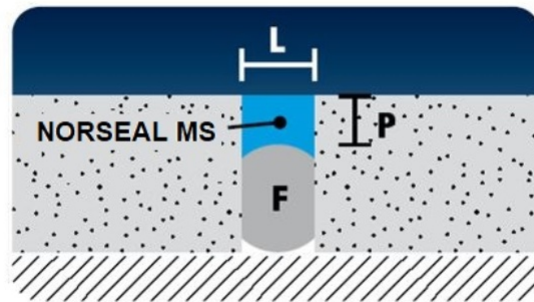
NORDSEAL MS is packaged in 290 ml cartridges: cut the nozzle at 45° into the desired diameter and extrude

NORDSEAL MS

using a cartridge gun until the joint is filled, without incorporating air.

Product application

- Cover the edges of the joint with masking tape.
- If NORPHEN FONDO IGRO is used as a primer, it is necessary masking the substrate in order to avoid indelible stains: once the parts not subject to sealing have been protected, apply the primer with a small brush or pad to the affected parts, wait for it to dry (10-15 minutes for the solvent to evaporate) and then proceed immediately to sealing.
- If necessary, insert the FILTENE FONDO GIUNTI (F) expanded polyethylene cord on the bottom of the joint to delimit the depth (P) of the seal:



- Smooth the surface with a damp tool (preferably moistened with soapy water) before the surface skin forms.
- Remove the masking tape immediately.

Consumption

type of application	minimum consumption	maximum consumption	u.m.	notes
All surfaces, to make a joint with a section of 1 cm x 1 cm	95	105	mL/m	(1)
For covings (section 0.75 0.85 cm ²), on wall or floor	73	78	mL/m	(2)

(1) Yield: 2.9 m of joint per 290 mL cartridge.

(2) Yield: 4 m of coving per 290 mL cartridge.

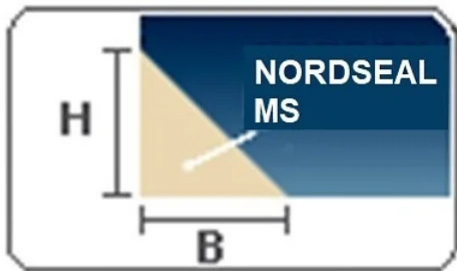
► Yield (R) in sealing a RECTANGULAR section joint per 290 mL cartridge:

L (mm)	P (mm)	R (m)
3-4	4-5	18
6	6	8
8	6	6
10	7	4
15	10	1,9
20	11	1,3
25	15	0,75

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► Yield (R) in sealing a TRIANGULAR section joint per 290 mL cartridge:

B (mm)	H (mm)	R (m)
3	3	64
5	5	23
10	10	5,8
15	15	2,5
20	20	1,4



Tool cleaning

- Fresh product: cleaning with BETONSEAL CLEANER.
- Hardened product: mechanical removal, specific paint strippers (GEL STRIPPER or FLUID STRIPPER) or heat gun.

Useful tips for laying

- NORDSEAL MS is not over-paintable.
- It is recommended not to apply on surfaces with a moisture content higher than 6 – 7% (measured with carbide hygrometer according to UNI 10329, DIN 18560-4 or ASTM D4944).
- For effective sealing, joints subject to movement must be of a size and shape compatible with the elongation capabilities of the sealant.
- Do not apply NORDSEAL MS to heavily plasticized or bituminous-based plastic or rubber materials from which oils, plasticizers or solvents may migrate to the surface, impairing adhesion and altering its color and strength.
- Do not use NORDSEAL MS for sealing aquariums and pipes in contact with drinking water.
- Do not expose the sealant to heat, mechanical forces or chemical agents before it has completely cured.
- NORDSEAL MS cures by reaction with atmospheric humidity: low relative humidity diminishes the cross-linking rate, while temperature has a minimal influence.

Technical Data

► PRODUCT IDENTIFICATION DATA		value
Consistency	-	Thixotropic paste
Crosslinking	-	Reaction with moisture
Density at 23 °C, 50 %RH, EN ISO 1675	kg/L	1,08
Non-volatile matter, ISO 1625	-	99 %
► APPLICATION DATA AND FINAL PERFORMANCE		value
Application temperature	°C	+5 to +40
Surface drying time (20°C, 50%RH), EN ISO 9117-3	Min	37 ± 2
Amplitude, EN ISO 9047	-	± 25%
Crosslinking rate	mm/24 hours	3,5 ± 0,5
Temperature resistance	°C	-40 to +100
Water resistance	-	High
Weather resistance	-	High
Resistance to aging	-	High
Resistance to soap and detergents	-	Good
Solvent resistance	-	Limited

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FINAL PERFORMANCE IN ACCORDANCE WITH EN 15651-1, EN 15651-3, EN 15651-4		value
Shore A hardness (at +23 °C, 50 %RH), EN ISO 868	-	(17 ± 2)°
Elastic recovery, EN ISO 7389	-	75 %
Flow resistance, EN ISO 7390	Mm	0
Volume loss (PV), EN ISO 10563	-	4 %
Secant tensile modulus at (23 ± 2)°C, ISO 8339	Mpa	0,4
Secant tensile modulus at (-30 ± 2)°C, ISO 8339	Mpa	0,56
Tensile properties under conditions of extension maintained after immersion in water, EN ISO 10590	-	No breakage
Tensile properties under extension conditions after immersion in salt water, EN ISO 10590	-	No breakage
Tensile properties under maintained extension conditions at (-30 ± 2)°C, EN ISO 8340	-	No breakage
Adhesion/cohesion properties at variable temperatures; EN ISO 9047	-	No breakage
Tear resistance	-	Test passed
Adhesion/cohesion at variable temperatures, EN ISO 9047	-	No breakage
Micro-organisms: growth intensity, EN ISO 846 (procedure B)	-	0
Reaction to fire (Euro-class), EN 13501-1	-	And

Product storage

- 18 months in the original closed packaging, in a dry, covered environment, protected from sunlight and at a temperature between +5°C and +25°C.
- Storage at temperatures above 25°C for long periods shortens the shelf life of the product.

Packaging

VARIANT	PACKAGE	ADR	PACKAGE / PALLET	COMPONENTS	NOTES
CEMENT GREY F	box - 12 pcs	NO	-		(1)

NOTES:

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

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