

High quality roofing products



Waterproofing. Right from the start.



- › Roofing products
- › What is a modified bitumen membrane?
- › Recommendations for the correct installation and maintenance of modified bitumen membranes
- › Concrete answers, service and advantages
- › Handling and storage
- › Job's pictures



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Under no circumstances will Nord Bitumi be held liable for any damage, whether personal injury or property damage, which occur during or after the application of the membrane.

For further information, comments or suggestions, please contact: nordus@nordbitumi.com



Mission and values

Our mission is to create a better environment in which to live and work.

Constant focus on people and the environment inspires our innovation, and our direction is driven by the fundamental values that have guided the company for over 45 years.

Human resources

Our people are the company's primary asset, and our successful evolution requires investment in their personal growth and professional development.

Technology

We are constantly seeking new technologies and best practices to operate with efficiency and with a commitment to quality.

Responsibility

The performance of a roofing system is not enough. We are committed to deliver both performance and value to meet the needs of the marketplace.

Specialisation

As a pioneer in the development of modified bitumen roofing, Nord Bitumi will continue to channel its expertise and passion into further innovation.



A history of innovation and progress

- 1967 Nord Bitumi begins producing APP membranes in Italy
- 1977 Nord Bitumi begins producing SBS membranes in Italy
- 1982 Nord Bitumi's first US plant is established in Plattsburgh NY
- 1984 A second North American plant opens in Macon GA
- 1986 A third North American plant begins operations in Kansas City, KS
- 1990 Nord Bitumi obtains US patent for an insulating panel to support bituminous waterproofing
- 1992 Nord Bitumi achieves FM & UL ratings for US products
- 1993 Nord Bitumi earns FM approvals for entire membrane product line in Italy
- 1994 Nord Bitumi opens its new plant in Tampico, Mexico
- 1996 Nord Bitumi Worldwide is acquired by Johns Manville Corp
- 1996 Nord Bitumi SpA Italy introduces NORDSILENCE, a membrane designed to reduce impact noise
- 1997 Nord Bitumi SpA Italy obtains UNI EN ISO 9001:1994 quality certification
- 1999 Nord Bitumi SpA Italy introduces STRATOS Program, an innovative single-layer waterproofing system
- 2001 Nord Bitumi SpA Italy introduces MORFEO, acoustic insulation to reduce airborne and impact noise
- 2003 Nord Bitumi SpA Italy obtains the new UNI EN ISO 9001 quality certification: Vision 2000
- 2003 Nord Bitumi SpA acquires Nord Bitumi Italy from Johns Manville Corp
- 2006 Nord Bitumi SpA obtains CE (European Certification) mark and the Factory Production Control Certificate
- 2009 Nord Bitumi SpA re-enters the US market...**the bear is back!**
- 2010 Nord Bitumi SpA incorporates Nord Bitumi US Inc. and establishes US sales office and distribution center in Macon - GA



High quality roofing products



APP Membranes

torch applied

Nordpoly 4 B *smooth* – FM Approved

Nordpoly 4 M *mineral* – FM Approved

PAO Membranes

single ply system

torch, mop & cold applied

Super A *smooth*

Super A *Mineral*

SBS Membranes

torch, mop & cold applied

Nordflex S *smooth* – FM Approved

Nordflex M *mineral* – FM Approved

self adhering

Nordshield SMT *shingle metal & tile underlayment*

Nordshield SA Base 3 mm & 1.5 mm

Nordshield SA *Mineral cap sheet*

thermo adhering

Self Base mm 3

NORDPOLY 4B

APP modified bitumen waterproofing membrane.

-  Nordpoly 4B (smooth) is a 4 mm thick, APP modified bitumen waterproofing membrane reinforced with a nonwoven spunbond polyester carrier. The top surface is sanded and the underside is covered with a printed burn off polyethylene film. The diamond embossed surface provides excellent adhesion when the roll is torched to an acceptable substrate.

-  Nordpoly 4B is FM approved, Miami Dade and Florida Building Code Approved



**Florida Building
Code Approved**



Performance

- ✓ The unique formulation of high quality asphalt and APP polymers and copolymers creates an extremely elastic sheet that provides excellent weathering properties. The polyester reinforcement enhances the mechanical characteristics, elongation and tear strength of the membrane, plus adds increased puncture resistance.

Application

- ⊕ Nordpoly 4B can only be torch applied.
- ⊕ All side laps must be four inches. All end laps must be at least six inches.
- ⊕ If left exposed, a reflective coating should be applied to the surface of the membrane.



Characteristics before heat conditioning

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/80
Elongation @ 73°F MD/CMD	ASTM D 5147	%	45/45
Tear strength MD/CMD	ASTM D 4073		
	ASTM D 5147	lbf/in	100/80
Low temperature flexibility	ASTM D 5147	°F	14
Dimensional stability MD/CMD	ASTM D 1204		
	ASTM D 5147	% change	0.5/0.4
Compound stability @ 230°F	ASTM D 5147		Pass

Characteristics after heat conditioning (ASTM D 5869 - ASTM D 5147)

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/80
Elongation @ 73°F MD/CMD	ASTM D 5147	lbf/in	45/45
Low temperature flexibility @ 32°F	ASTM D 5147		Pass

Roll size NORDPOLY 4B

Description		Unit	Typical value
Thickness	ASTM D 5147	mm	4
Roll weight	ASTM D 228	lb	100
Roll length			32'10" (10.01 m)
Roll width			39" ³ / ₈ (1 m)

Material tested in accordance with ASTM D 5147 Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Materials. Material meets or exceeds the criteria for ASTM D 6222, Type I, Grade S.



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NORDPOLY 4M

APP modified bitumen waterproofing membrane.

-  Nordpoly 4M (mineral) is a 4 mm thick, APP modified bitumen waterproofing membrane reinforced with a nonwoven spunbond polyester carrier. The top surface is covered with mineral granules and the underside is covered with a printed burn off polyethylene film.

-  Nordpoly 4M is FM approved, Miami Dade and Florida Building Code Approved.



**Florida Building
Code Approved**



Performance

- ✓ The unique formulation of high quality asphalt and the APP polymers and copolymers creates an extremely elastic sheet that provides excellent weathering properties.
The polyester reinforcement enhances the mechanical characteristics, elongation and tear strength of the membrane, plus adds increased puncture resistance.
The surface granules not only enhance the roof's appearance, they also reduce roof temperatures and protect the membrane from the damaging affects of ultra violet rays.

Application

- ⊕ Nordpoly 4M can only be torch applied.
- ⊕ All side laps must be four inches. All end laps must be at least six.



Characteristics before heat conditioning

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/80
Elongation @ 73°F MD/CMD	ASTM D 5147	%	45/45
Tear strength MD/CMD	ASTM D 4073		
	ASTM D 5147	lbf/in	100/80
Low temperature flexibility	ASTM D 5147	°F	14
Dimensional stability MD/CMD	ASTM D 1204		
	ASTM D 5147	% change	0.3/0.3
Compound stability @ 230°F	ASTM D 5147		Pass
Granule embedment	ASTM D 4977		
	ASTM D 5147	g	1.95

Characteristics after heat conditioning (ASTM D 5869 - ASTM D 5147)

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/80
Elongation @ 73°F MD/CMD	ASTM D 5147	lbf/in	45/45
Low temperature flexibility @ 32°F	ASTM D 5147		Pass

Characteristics after 2000 hrs accelerated weathering (ASTM D 5869 - ASTM G 155)

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/80
Elongation @ 73°F MD/CMD	ASTM D 5147	lbf/in	50/50
Low temperature flexibility @ 32°F	ASTM D 5147		Pass

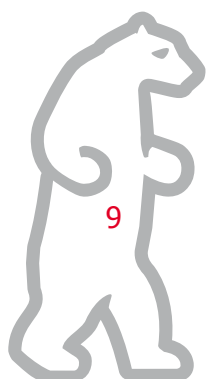
2007 Florida Building Code, 1504.7

Description		Unit	Typical value
Impact Resistance [rating]	ASTM D 3746		2

Roll size NORDPOLY 4B

Thickness	ASTM D 5147	mm	4
Roll weight	ASTM D 228	lb	100
Roll length			32'10" (10.01 m)
Roll width			39" ³ / ₈ (1 m)

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NORDFLEX S

- 👉 **SBS modified bitumen waterproofing membrane.**
- 👉 Nordflex S (smooth) is a 4 mm thick, SBS modified bitumen waterproofing membrane reinforced with a nonwoven spunbond polyester carrier. The top surface is covered with sand and the underside is covered with a printed burn off polypropylene film or non-woven polypropylene.
- 👉 Nordflex S is FM approved, Miami Dade and Florida Building Code Approved.



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Performance

- ✓ Nordflex is formulated using high quality asphalt that has been specially modified with SBS (Styrene-Butadiene-Styrene) polymer. The SBS creates a strong molecular bond with the asphalt giving Nordflex improved flexibility and excellent high/low temperature performance.
- ✓ The polyester reinforcement enhances the mechanical characteristics, elongation and tear strength of the membrane, and adds increased puncture resistance.

Application

- ⊕ Nordflex S can be torch applied or, with a non woven polypropylene felt (PP) on the bottom surface, can be apply with cold adhesive or hot mopping asphalt.
- ⊕ All side laps must be four inches. All end laps must be at least six inches.
- ⊕ Nordflex S is typically used as an innerply in a multi-ply SBS system



Characteristics before heat conditioning

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/80
Elongation @ 73°F MD/CMD	ASTM D 5147	%	50/50
Tear strength MD/CMD	ASTM D 4073		
	ASTM D 5147	lbf/in	100/80
Low temperature flexibility	ASTM D 5147	°F	-13
Dimensional stability MD/CMD	ASTM D 1204		
	ASTM D 5147	% change	0.5/0.4
Compound stability @ 230°F	ASTM D 5147		Pass

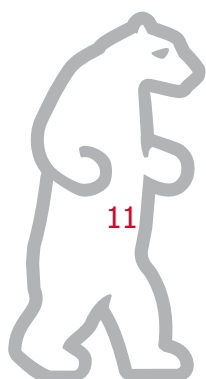
Characteristics after heat conditioning (ASTM D 5869 - ASTM D 5147)

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/80
Elongation @ 73°F MD/CMD	ASTM D 5147	lbf/in	50/50
Low temperature flexibility @ 0°F	ASTM D 5147		Pass

Roll size

Description		Unit	Typical value
Thickness	ASTM D 5147	mm	4
Roll weight	ASTM D 228	lb	100
Roll length			32'10" (10.01 m)
Roll width			39" ³ / ₈ (1 m)

Material tested in accordance with ASTM D 5147 Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Materials. Material meets or exceeds the criteria for ASTM D 6164, Type I, Grade S.



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NORDFLEX M

SBS modified bitumen waterproofing membrane.

-  Nordflex M (mineral) is a 4 mm thick, SBS modified bitumen waterproofing membrane reinforced with a nonwoven spunbond polyester carrier. The top surface is covered with colored mineral granules and the underside is covered with a printed burn off polypropylene film or non-woven polypropylene.

-  Nordflex M is FM approved, Miami Dade and Florida Building Code Approved.



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Performance

- ✓ Nordflex is formulated using high quality asphalt that has been specially modified with SBS (Styrene-Butadiene-Styrene) polymer. The SBS create a strong molecular bond with the asphalt giving NORDFLEX improved flexibility and excellent high/low temperature performance.
- ✓ The polyester reinforcement enhances the mechanical characteristics, elongation and tear strength of the membrane, and adds increased puncture resistance. The surface granules not only enhance the roof's appearance, they also reduce roof temperatures and protect the membrane from the damaging effects of ultraviolet rays.

Application

- ⊕ Nordflex M can be torch applied or, with a non woven polypropylene felt (PP) on the bottom surface, can be applied with cold adhesive or hot mopping asphalt.
- ⊕ All side laps must be four inches. All end laps must be at least six inches.



Characteristics before heat conditioning

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/80
Elongation @ 73°F MD/CMD	ASTM D 5147	%	50/50
Tear strength MD/CMD	ASTM D 4073		
	ASTM D 5147	lbf/in	100/80
Low temperature flexibility	ASTM D 5147	°F	-13
Dimensional stability MD/CMD	ASTM D 1204		
	ASTM D 5147	% change	0.5/0.4
Compound stability @ 230°F	ASTM D 5147		Pass
Granule embedment	ASTM D 4977		
	ASTM D 5147	g	1.9

Characteristics after heat conditioning (ASTM D 5869 - ASTM D 5147)

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/80
Elongation @ 73°F MD/CMD	ASTM D 5147	lbf/in	50/50
Low temperature flexibility @ 0°F	ASTM D 5147		Pass

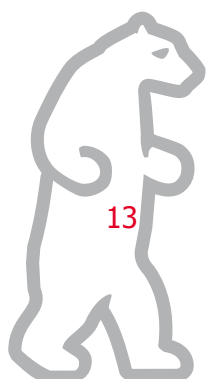
Characteristics after 2000 hrs accelerated weathering (ASTM D 5869 - ASTM G 155)

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/80
Elongation @ 73°F MD/CMD	ASTM D 5147	lbf/in	50/50
Low temperature flexibility @ 0°F	ASTM D 5147		Pass

Roll size

Thickness	ASTM D 5147	mm	4
Roll weight	ASTM D 228	lb	100
Roll length			32'10" (10.01 m)
Roll width			39" ³ / ₈ (1 m)

Material tested in accordance with ASTM D 5147 Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Materials. Material meets or exceeds the criteria for ASTM D 6164, Type I, Grade G.



SELF BASE

Thermo Adhering SBS Membrane.

Nord Self Base is a 3 mm thick, SBS modified bitumen, thermo-adhering waterproofing membrane that is reinforced with a nonwoven spunbond polyester carrier. The top surface is covered with a printed burn off polypropylene film and the underside has an easy-to-remove polyethylene release film.

Self Base is Miami Dade and Florida Building Code Approved.



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Performance

- ✓ Self Base is formulated using high quality asphalt that has been specially modified with SBS (Styrene-Butadiene-Styrene) polymer. The SBS creates a strong molecular bond with the asphalt giving Nord Self Base improved flexibility and excellent high/low temperature performance. This particular formulation allows Nord Self Base to transfer heat from the top surface of the membrane to the underside during application, providing excellent adhesion to the substrate.
- ✓ **Can be used both with an APP or SBS Cap Sheets.**
- ✓ The polyester reinforcement enhances the mechanical characteristics, elongation and tear strength of the membrane and provides excellent puncture resistance.

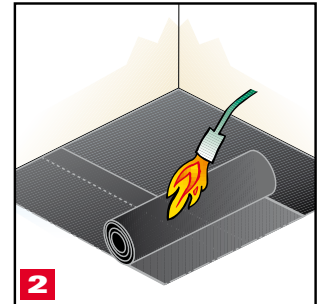
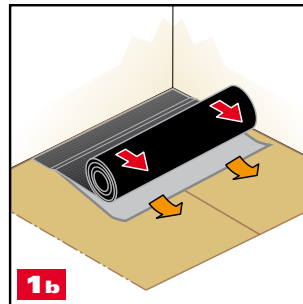
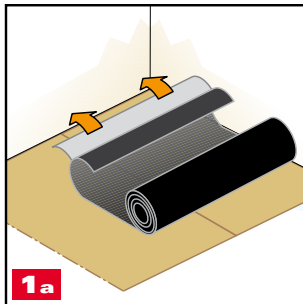
Application

- ⊕ Nord Self Base is laid loose on substrate (such as wood or insulating panels) after removing the PE (polyethylene) release film. The adhesion of Self Base is achieved by the heat produced on the top surface of the membrane when the cap sheet is torch applied. The indirect heat coming from torching the top layer is enough for the Self Base to be adhered to the substrate, creating a strong and lasting bond.



The advantages of thermo-adhesive membranes are as follows:

- ☺ easy laying as additional protective sheets are unnecessary;
- ☺ safer application since the risk of burning the substrate is prevented;
- ☺ reduction in installation time as two membranes are bonded simultaneously with a single torching operation



Characteristics before heat conditioning

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/70
Elongation @ 73°F MD/CMD	ASTM D 5147	%	50/50
Tear strength MD/CMD	ASTM D 4073		
	ASTM D 5147	lbf/in	100/70
Low temperature flexibility	ASTM D 5147	°F	-13
Dimensional stability MD/CMD	ASTM D 1204		
	ASTM D 5147	% change	0.5/0.3
Compound stability @ 230°F	ASTM D 5147		Pass

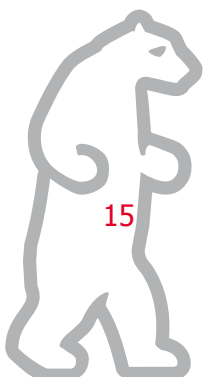
Characteristics after heat conditioning (ASTM D 5869 - ASTM D 5147)

Description		Unit	Typical value
Tensile strength @ 73°F MD/CMD	ASTM D 5147	lbf/in	100/70
Elongation @ 73°F MD/CMD	ASTM D 5147	lbf/in	50/50
Low temperature flexibility @ 0°F	ASTM D 5147		pass
Dimensional stability MD/CMD	ASTM D 5147		
	ASTM D 1204	lbf/in	0.5/0.3

Roll size

Description		Unit	Typical value
Thickness	ASTM D 5147	mm	3
Roll weight	ASTM D 228	lb	88
Roll length			32'10" (10.01 m)
Roll width			39" ³ / ₈ (1 m)

Material tested in accordance with ASTM D 5147 Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Materials. Material meets or exceeds the criteria for ASTM D 6164, Type I, Grade S.



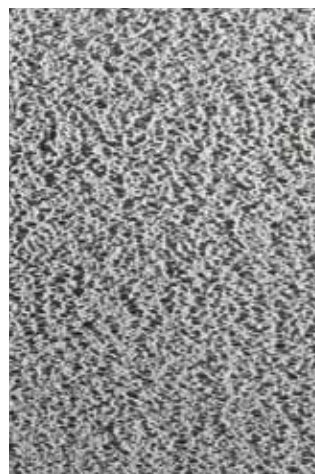
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NORDSHIELD SMT

- 👉 **Self-adhering shingle, metal & tile underlayment.**
- 👉 Nordshield SMT is a fiberglass -reinforced, self-adhering membrane that is especially designed for use as a waterproofing underlayment in shingle, metal or tile roof systems. Nordshield SMT has an embossed upper surface that provides excellent skid resistance, and a formulation that performs in both high and low temperature environments.



Characteristics

Description	Unit	Typical value
Modifier		SBS
Roll size		2 squares
Top surface		skid-resistant PP film
Bottom surface		release film
Nominal thickness		1.6 mm
Reinforcement		fiberglass
Softening point	ASTM D 36	250°F (120°C)
Cold flex temperature	EN 1109	-13°F (-25°C)

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NORDSHIELD SYSTEM SA

- 👉 **Self adhering SBS membranes.**
- 👉 Nordshield SA waterproofing membranes are self-adhering and can be applied without the use of traditional roofing adhesives, equipment, or special tools.
- 👉 Nordshield SA's excellent adhesion results in a long-lasting waterproofing system on roof deck materials such as metal, wood, and concrete, and Nordshield SA membranes can be installed directly on some insulation panels, such as polyisocyanurate. The adhesive is part of the membrane's formulation...not a post-production surface application... which ensures an excellent bond and long lasting adhesion to the substrate.
- 👉 Nordshield SA's polyester reinforcement enhances the mechanical characteristics, elongation and tear strength of the membrane, and adds increased puncture resistance.



Characteristics

		Nordshield SA Base	Nordshield Base 3 mm	Nordshield Mineral
Modifier		SBS	SBS	SBS
Roll size		60'12"x 39" ^{3/8}	32'10"x 39" ^{3/8}	32'10" x 39" ^{3/8}
Top surface		PP film	release film	granules
Bottom surface		release film	release film	release film
Nominal thickness		1.6 mm	3.0 mm	
Nominal weight (roll)		80 lb	90 lb	90 lb
Reinforcement		fiberglass	polyester	polyester
Softening point	ASTM D 36	250°F (120°C)	250°F (120°C)	250°F (120°C)
Cold flex temperature	EN 1109	-13°F (-25°C)	-13°F (-25°C)	-13°F (-25°C)
Tensile strength	ASTM D 5147	MD/CM	MD/CM	MD/CM
	lb/in	75/65	80/60	80/60
Elongation (%)	ASTM D 5147	6/6	45/45	45/45

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Nordshield System

Nordshield SA Base

A fiberglass-reinforced self-adhering membrane that serves as a base sheet in a two-ply self-adhered system. It can be applied directly to primed concrete and smooth/clean substrates such as wood, metal and polyiso by removing the polyethylene release film on the underside of the membrane.

The top surface film is compatible with self-adhered and torch-applied cap sheets.



Nordshield SA Base 3 mm (Polyester)

A 3 mm polyester-reinforced self-adhering membrane that serves as a base or ply sheet in a multi-layer self-adhered system. The top and bottom surfaces are covered with a split-release polyethylene film which is removed during installation to expose the adhesive compound. If the roof substrate is not suitable for direct adhesion, Nordshield Base can be fastened mechanically.

Nordshield Base membrane is also available with a printed burn off polypropylene on the top surface for torch application of the cap sheet.

Nordshield SA Mineral (Polyester)

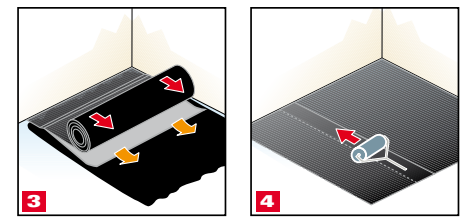
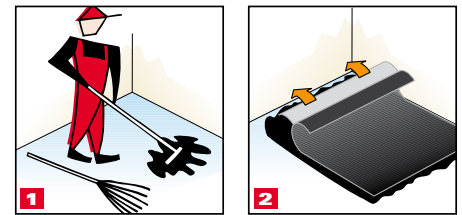
A polyester-reinforced self-adhering membrane that serves as the cap sheet in the system. The top surface is covered with coloured mineral granules while the bottom surface has the easy-to-remove split-release film.



Nordshield System SA installation

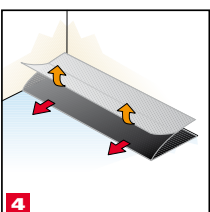
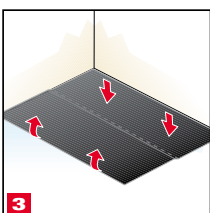
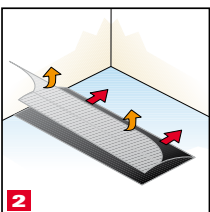
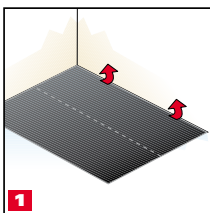
Installing base sheets

- ❶ The surface must be firm, smooth, dry and free of dust, debris. Concrete decks must be primed with ASTM D 41 asphalt primer.
- ❷ Align the base sheet on the lower edge of the roof deck parallel to the slope. Remove the release film approximately 18" from the end of the membrane and press the membrane into place.
- ❸ Roll the membrane back to the end section that is already adhered. Then, remove the release film as you unroll the membrane, taking care to keep it aligned.
- ❹ Use a weighted roller over the entire surface of the membrane to insure total and even adhesion to the substrate. Roll the laps along the length of the membrane with a hand roller.
- ★ Install adjacent membranes using the same process, overlapping the side laps 3" and end laps 6", making sure that all laps face away from water flow.



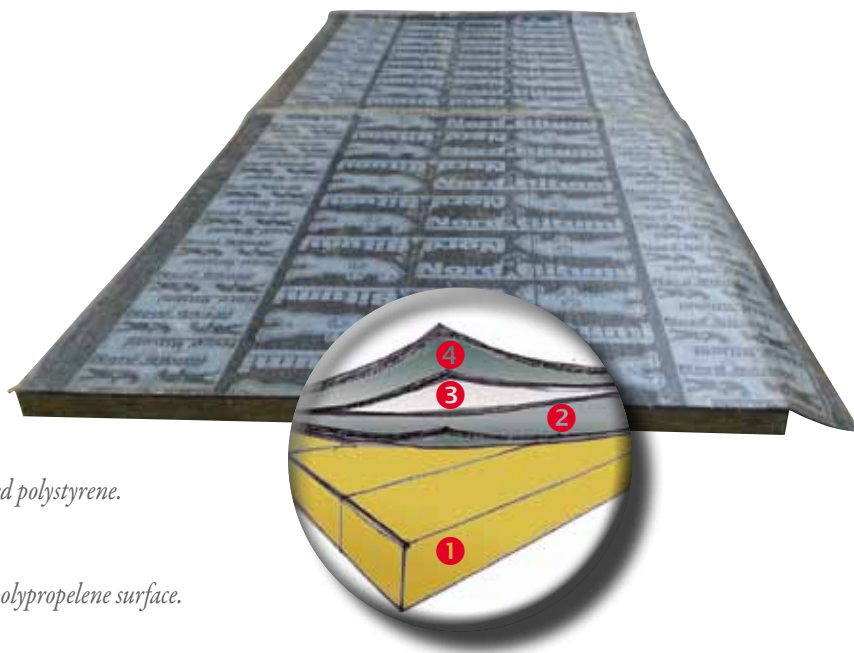
Installing cap sheets

- ❶ The surface must be firm, smooth, dry and free of dust, debris, and any other loose materials. If the Nordshield SA Base has been exposed for any length of time, prime the surface with ASTM D 41 asphalt primer and wait until it dries completely.
- ❷ Align the cap sheet (Nordshield SA Mineral) along the lower edge of the roof deck. If a base sheet has been installed, position the cap sheet parallel to the direction of the base sheet so its laps are staggered approximately 18" from the base sheet laps. Fold the membrane in half, lap edge to lap edge, and peel away half of the pre-cut release film.
- ❸ Return the folded half to its original position and apply the exposed adhering bitumen securely to the substrate or base sheet.
- ❹ Fold over the opposite half of the membrane, remove the other half of the release film and repeat step 3. Roll the side laps along the length of the membrane with a hand roller to ensure adequate adhesion.
- ★ Overlap end laps 6" and secure with trowel grade modified bitumen adhesive, or by "sinking" the granules of the under lap with a hot air heat-weld tool.
- ★ Roll a weighted roller over the entire surface of the membrane to ensure total and even adhesion to the substrate or base sheet.



NORDBOARD II

- ☞ A cover board/thermal insulation panel bonded to a polymer-bitumen waterproofing membrane.
- ☞ Nordboard II is available with two different thermal insulations:
 - ▮ extruded polystyrene foam (Nordboard II-ext)
 - ▮ polyisocyanurate foam (Nordboard II-iso).
- ☞ The waterproofing membrane which covers the insulation is reinforced with a fiberglass mat.
- ☞ The film on the top surface of the membrane is compatible with self-adhered and torch-applied cap sheets.



- ❶ Panels of polyisocyanurate foam or extruded polystyrene.
- ❷ Polymer-bitumen membrane underside.
- ❸ Reinforcement: fiberglass mat.
- ❹ Top of polymer-bitumen membrane with polypropylene surface.

Notes

- In addition to typical asphaltic bonding and mechanical fastening, Nordboard II can be torch-secured on Nordbase V2, an innovative Nord Bitumi membrane that can be used as a vapor barrier or vented base sheet.
- Heat welding Nordboard to Nordbase V2, even on pitched roofs, can reduce installation time and lower materials handling costs. The need for hot asphalt... and the labor related to kettle set-up...is eliminated, and the combination of vapor barrier, thermal insulation, and surface membrane are achieved with fewer installation steps.

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For further information, comments or suggestions, please contact: nordus@nordbitumi.com - M19.436 dec.2012



NORD SUPER A

- PAO (polyalphaolephine) modified membranes which have increased resistance to thermal aging and UV degradation compared with standard APP and SBS membranes.
- Super A can be installed as a **single ply** and, with the appropriate underside surface, can easily be torched, mopped or applied with cold adhesives. These membranes can also be mechanically fastened with the laps sealed using a hot air welding device.
- Super A is also available with special formulation that provides fire resistance and prevention of root penetration.



Characteristics

		Super A mm 4	Super A Mineral
Modifier		PAO	PAO
Roll size		32'8" x 39" ³ / ₈	24'07" x 39" ³ / ₈
Top surface		smooth	granules
Bottom surface		Burn off PP film	Burn off PP film
Nominal thickness		4.0 mm	4.0 mm on selvage
Nominal weight (roll)		90 lb	90 lb
Reinforcement		Composite Polyester	Composite Polyester
Softening point	ASTM D 36	302°F (150°C)	302°F (150°C)
Cold flex temperature	EN 1109	-13°F (-25°C)	-13°F (-25°C)
Tensile strength	ASTM D 5147	MD/CMD	MD/CMD
	lb/in	100/80	100/80
Elongation (%)	ASTM D 5147	40/40	40/40

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NORDBASE V2

- 👉 **Nordbase V2 is a bituminous “dimpled” membrane that can be used as a vapour barrier or a vented base sheet.**
- 👉 Nordbase V2’s waterproofing properties prevent condensation penetrates into the roof system and protect the thermal insulation layer from eventual damage.
- 👉 **Nordbase V2 can also be used to waterproof foundation’s walls** and it’s ready to be easily coupled with insulation boards or draining elements. The “dimples” protect the membrane against penetration during ground backfilling operation.
- 👉 **Nordbase V2: waterproofing, draining and protection with one membrane.**

Formulation

- 💧 The innovative Nordbase V2 formulation produces excellent workability at low temperatures, resistance to mechanical stress, and longlasting elasticity.

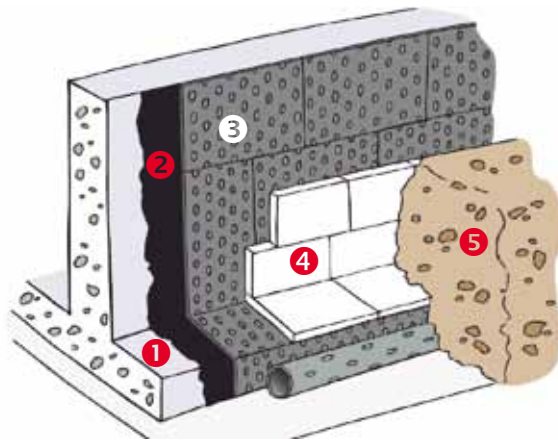
Reinforcement

- ⚙️ Nordbase V2 is reinforced with a composite mat of a polyester fabric and glass filaments. As an alternative, Nordbase V2 can be produced with an aluminum foil reinforcement.

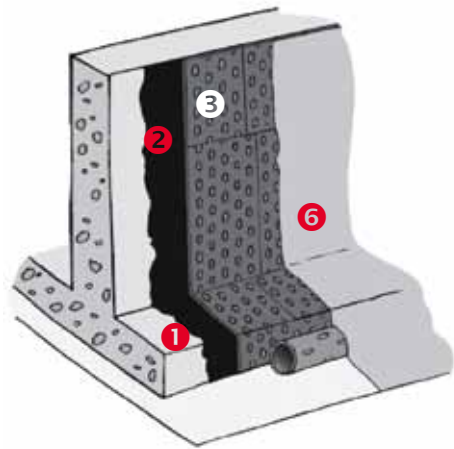
Characteristics

	Nordbase V2	Nordbase V2 Laminar
Thickness	4.0 mm	4.0 mm
Weight	86 lbs	78 lbs
Heat stability	212°F	212°F
Cold flex	23°F	23°F
Roll length	26'03" (8 mt)	24'07" (7,5 mt)
Roll width	42" ¹ / ₂ (108 cm)	41" ¹ / ₃ (105 cm)
Rolls/pallet	20	20





- ❶ Foundation
- ❷ Primer
- ❸ Nordbase V2
- ❹ Insulation
- ❺ Ground



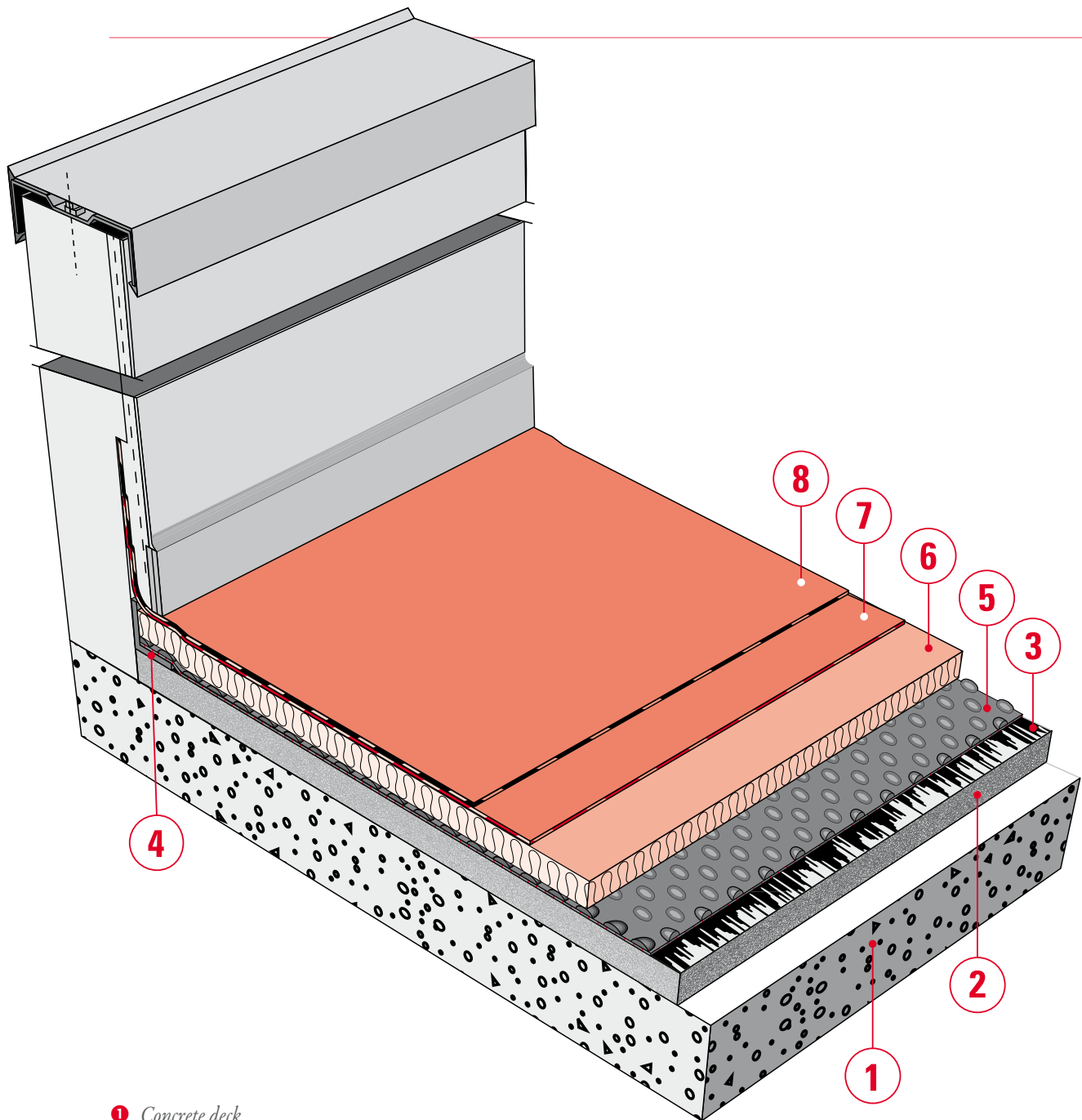
- ❶ Foundation
- ❷ Primer
- ❸ Nordbase V2
- ❹ Geotextile

Application

- ⊕ Nordbase V2 acts as a protection and draining membrane. Mainly used to waterproof foundations which are underneath constructions. If necessary, insulating panels or filtering elements can be attached to Nordbase V2 by simply torching the thermo-adhesives cusps. This way resistance and draining function of the system will be increased.
- ⊕ Apply Nordbase V2 by torch directly on the wall to waterproof, with the dimpled surface facing outwards. The sheets must be welded and side overlapped on their 3,2" selvage edge free from dimples, made for that purpose. The end seams are secured using a 6" bituminous strip (Nordpoly 4B) underneath the seam before torch down Nordbase V2

Advantages:

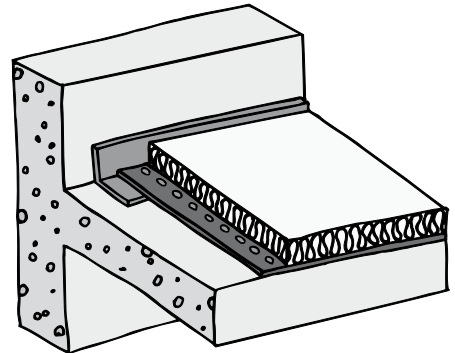
- ☺ The dimpled upper surface of Nordbase V2 prevents membrane perforation in underground constructions.
- ☺ The number of cusps per m2 (more than 1.000) was designed with the aim of coupling NORDBASE V2 with insulating panels or filtering and draining elements made of synthetic fibres.
- ☺ Safer and faster installation.
- ☺ On demand Nordbase V2 "Antiradice" is also available: an APP waterproofing and draining membrane having an anti-root additive (polyglycol chloride-propionate) also for "roof garden".
- ☺ A strong, non-woven polyester mat ensure an excellent puncturing resistance.



- ❶ Concrete deck
- ❷ Screed slope
- ❸ Primer
- ❹ Connection band (strip)
- ❺ Nordbase V2 or Nordbase V2 Laminar
- ❻ Insulation board (or insulation roll)
- ❼ Nordpoly 4B (or Nordflex mm 4 Smooth)
- ❽ Nordpoly 4M (or Nordflex Mineral)

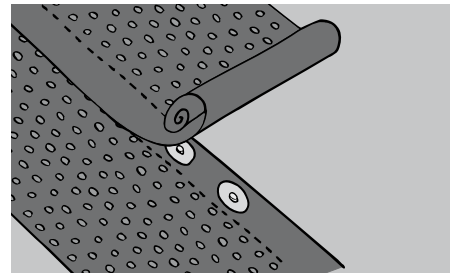
Vertical walls

- ♦ A bituminous band of a smooth waterproofing membrane must be installed at the base of vertical walls to transition the field membrane into the vertical wall flashing. The band must be a minimum of 8" wide, with half extending under the field membrane and half up the vertical surface.



Wood decks

- ♦ Nordbase V2 must be installed perpendicular to the gutter line, and fastened along the selvage edge before heat-welding the side laps. The end seams are secured using a 6" selfadhered bituminous strip (Nordshield) underneath the seam.

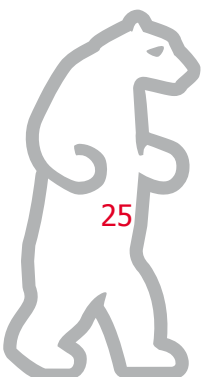


Application

- ⊕ The Nordbase V2 membrane must be torched to an acceptable substrate with the dimpled surface up. It has a selvage edge on both sides for heat-welded side laps, and the end laps are secured with a 6" bituminous strip underneath the seam. Insulation boards can be torched directly to the dimpled surface, eliminating the need for hot asphalt, cold adhesives or mechanical fastening.

Advantages:

- ☺ Reduces installation time of a multi-layer roof system.
- ☺ Fast and safe installation of thermal insulation due to thermo-adhesive "dimples".



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What is a modified bitumen membrane?

A bitumen-polymer membrane is a composite material. It is manufactured combining two components:

- ▶ *a **bituminous compound** made of distilled bitumen modified with thermoplastic polymers.*
- ▶ *a **reinforcement** of fibrous materials of various kinds, typically derived from fiberglass or polyester fibers.*

The two components work in a synergistic manner. The bituminous compound guarantees impermeability and durability while the reinforcement gives the membrane excellent mechanical properties and puncture resistance. Several factors should be considered when choosing the right polymer: increased heat resistance, flexibility at low temperatures, resistance to deformation and aging, and compatibility with bitumen to avoid separation of the two components and to obtain optimum compound mix.

Polimers

SBS

A thermoplastic elastomer with network structure. Its performance is similar to vulcanized rubber.

SBS adds to a bitumen compound:

- ▶ workability at low temperatures;
- ▶ resistance to mechanical tensile forces;
- ▶ elastic properties and weatherability.

APP

Atactic polypropylene is obtained through polymerization of propylene. It provides perfect compatibility in blending with bitumen.

APP adds to a bitumen compound:

- ▶ plasticity, making it ideal for torch application;
- ▶ better resistance to UV radiation;
- ▶ resistance to heat.

PAO

Poly-alpha-olefins have high molecular weight and low crystallinity index.

PAO adds to a bitumen compound:

- ▶ excellent resistance to aging;
- ▶ long-lasting flexibility;
- ▶ better adhesion between contiguous layers;
- ▶ resistance to UV radiation.

Reinforcements

Glassfiber

Made of very thin glass fibers, adds to a membrane:

- ▶ dimensional stability
- ▶ resistance to root.

Spunbond non-woven polyester

Textiled with long size polyester fibers.

It adds to a membrane:

- ▶ mechanical performance (tensile strength, elongation);
- ▶ puncture resistance;
- ▶ dimensional stability (a stabilized Spunbond polyester is also available, which is reinforced with glass filaments).

Composite reinforcement

Manufactured with one or more polyester mats woven with a glassfiber mesh. It adds to a membrane:

- ▶ excellent dimensional stability;
- ▶ good mechanical performance increased puncture resistance.

Recommendations for the correct installation and maintenance of modified bitumen membranes

At least two layers of modified bitumen membranes should be used in most applications for best roof performance and longevity.



- ▶ Always use a mineral-surfaced membrane as top layer in an SBS system. Mineral granules help reduce membrane heat absorption, and protect the surface from the damaging effects of UV rays. Only APP membranes without mineral granules can be used as a top layer, but should be protected with a reflective coating.
- ▶ Make regular inspections of the roof after installation, and implement a maintenance routine. If the membrane has been coated, the coating must be restored regularly.
- ▶ Never apply a reflective coating to elastomeric (SBS) membranes.
- ▶ Applying a bitumen polymer membrane directly to cellular concrete is not recommended

Concrete answers, service and advantages

Specific answers and viable solutions

The know-how acquired over 45 years allows Nord Bitumi to understand the dynamics of today's roofing market, to interpret the needs of building owners, specifiers, and contractors, and to offer appropriate solutions.

We are not simply product manufacturers but specialized technical partners.

We are problem-solving researchers as well as manufacturers, who recognize the uniqueness of each customer.

Our mission is to provide every customer with the most suitable solution to meet their needs and the support to ensure a successful installation.

Research and quality

Nord Bitumi products are tested continuously to guarantee measurable performance.

Nord Bitumi provides precise data which can be relied on.

Waterproofing and insulation characteristics are published for every product with reference to their strictest laboratory tests.

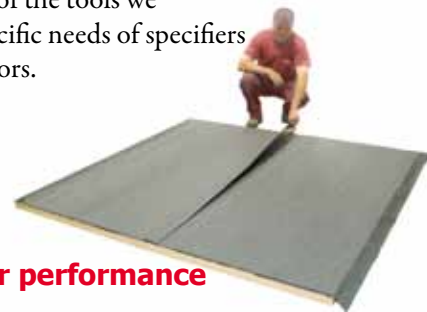
The constant commitment to comply with strict quality procedures has enabled Nord Bitumi to obtain ISO 9001:Vision 2000 certification.

The efficiency of Nord Bitumi's organization and the accuracy of its quality control program enabled the company to pass the rigorous tests required for certification.

The high quality standards of our output are confirmed through certificates issued by over 20 international institutes.

Serving your professional needs

Sharing technical information and technological know-how through qualified support: that's our distinguishing quality. Effective design and execution are achieved through thorough and comprehensive knowledge of products and technology. It's the main reason why we offer our forty-plus years of experience and know-how to designers, installers and distributors. Technical manuals, installation guidelines, product data sheets and technical roofing details are just a few of the tools we offer to meet the specific needs of specifiers and roofing contractors.

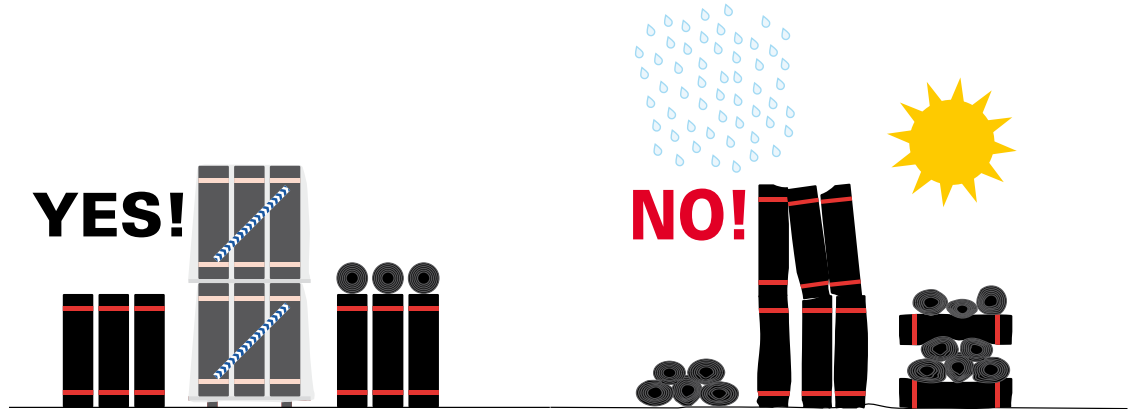


Supporting your performance requirements

Roof waterproofing and insulation products must be manufactured and installed with utmost attention to every detail, creating a "system" in which the constituent elements work together to ensure endurance and protection for the building.

Our consultants are available to identify the most suitable system for your project, offer technical data and component product recommendations throughout the design stage, provide installation guidelines for installers, and suggested maintenance programs for owners. Nord Bitumi... the trusted partner to roofing industry professionals for over 45 years.

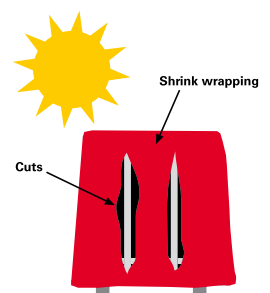
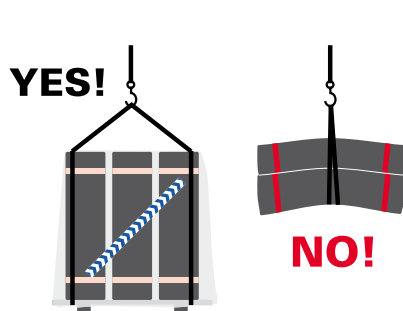
Handling and storage



- ❶ Rolls must always be stored in a vertical position.
- ❷ Stack a maximum of two pallets. Store the rolls at a temperature of not less than 10°F, protected from sun and weather.

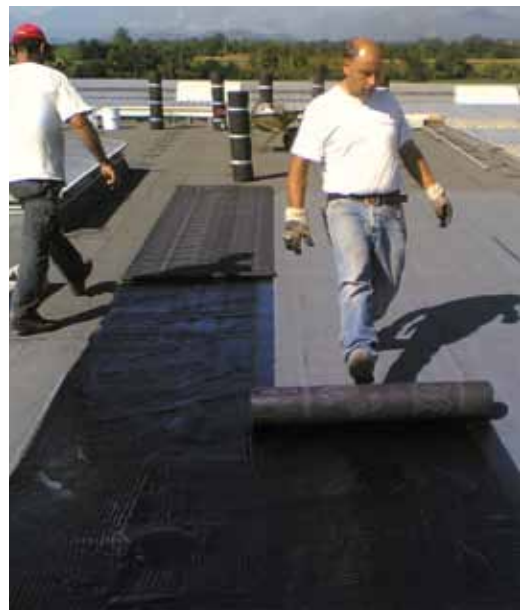
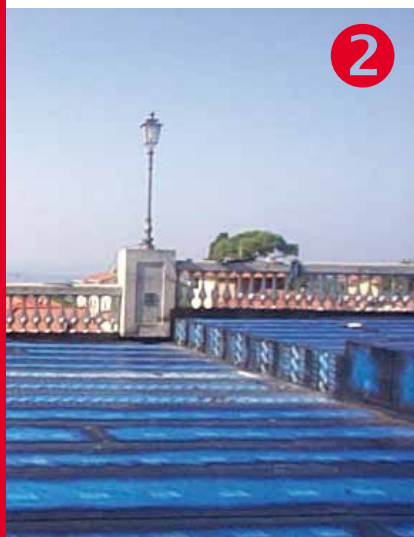


- ❸ Loose rolls should be loaded vertically and secured, and unloaded carefully to prevent damage.



- ❹ Rolls should be delivered just prior to installation, or stored on site in a protected condition
- ❺ Cut slits in shrink wrap to prevent moisture buildup.

Job's pictures





5



6

1

Shopping center
(Nordpoly 4M over Nordshield SA Base)

2

Super A 4 mm smooth
(top surface finished with blu PP film)

3

Super A applied by torch

4

Ferrari car plant

5

Norflex M FM, installed at the Ferrari Car
Plant - Italy

6

Super A mineral white



7



8

7

Nordpoly applied by torch on Self base
(thermo-adhering membrane)

8

Nordshield Mineral



Waterproofing. Right from the start.

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