HyDratec
SPECIALIST IN CONCRETE ACCESSORIES

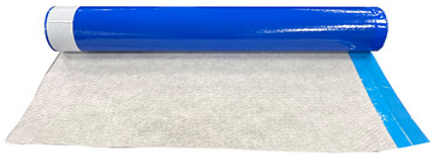
TECHNICAL DATA SHEET - POLYFLEECE SX1000

DESCRIPTION

Polyfleece SX1000 is a high-quality water- and radonproofing membrane composed of multiple waterproofing layers. A durable and flexible LDPE, a specially designed layer of fleece that ensures a strong bond to concrete. In addition to this, the membrane also features a swellable coating of modified polymer.

If the protective LDPE foil is physically damaged during installation or after concreting, the polymer interlayer provides additional and reliable waterproofing protection due to its swelling properties.

Polyfleece SX1000 is suitable for both cast-in-place concrete and precast concrete applications.



PROPERTIES

- **Flexible:**
  The membrane is flexible and easy to use and install on the conctruction site.
- **Swelling Properties:**
  If the polymer coating comes in contact with water, it swells up to 150% and ensures a continuous watertight construction.
- **Versitile:**
  Suitable for external, pre-applied, and post-applied waterproofing, either as a full-surface membrane or for sealing connection joints. Used in civil engineering, underground construction, and tunneling applications.
- **Bonding:**
  The fleece forms an integral bond with concrete, preventing lateral water migration.

RANGE OF ARTICLES

Item.nr	Description	Width	Length	m²/roll	m²/pallet	Unit
1324001	Polyfleece SX1000 1,0x20M	1,0 m	20 m	20	400	m²
1324002	Polyfleece SX1000 2,0x20M	2,0 m	20 m	40	800	m²
1313003	Swellpaste SX100 290ML	-	-	-	-	pcs
1324020	Polyfleece Adhesive Tape	75 mm	20 m			pcs
1324021	Polyfleece Fleece Tape	80 mm	25 m			m
1324027	2K-Sealing Adhesive SX 1 20KG Kit					kg

OTHER INFORMATION

BVB ID
94117

SundaHus

ETA, EPD and AbT is available for this product.

(Polyfleece SX1000)

STORAGE

Polyfleece SX1000 can be stored in the original unopened packaging for at least 12 months at temperatures between +5° C and +25°C.

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APPLICATION

Polyfleece SX1000 is used on horizontal or vertical surfaces as a seal against waterpenetration or radongas in water- or radontight reinforced concrete structures. As part of a pre-applied, fully bonded membrane system, it includes not only advanced system components but also help and guidlines for detailed planning, professional installation and documentation. The membrane can be used as a pre-applied membrane in cast-in-place constructions as well as on existing structures as a post-applied membrane (e.g. prefab-elements)

For both applications, the LDPE cover provides durable sealing of the concrete surface, while the swelling function activated by moisture creates pressure between the concrete and surrounding area once the LDPE coat is damaged. This swelling effect effectively seals even areas damaged by mechanical impact during the concreting process.

INSTALLATION

Installation of Polyfleece SX1000 in Fresh Concrete (pre-applied/cast-in-place):
Underneath slabs, Polyfleece SX1000 is laid with its LDPE-coated side facing the surface/ subrate layer. In wall constructions the membrane should be stapled or nailed to the wall formwork with the LDPE-coated side facing the formwork. In conclusion the fleece-coated side should **always** be faced towards the side where the concrete is going to be poured. All short-end overlaps should be properly secured with Polyfleece Adhesive Tape and Flexproof X1.

The installed membrane must be protected from mechanical damage prior to pouring the concrete.

Spacers and reinforcement can be placed directly on the fleece-coated side of the membrane before pouring concrete. The fleece absorbs part of the cement-water mix, ensuring a strong bond between the concrete and the membrane. A minimum curing time of 48 hours must be observed before the formwork removal.

Installation of Polyfleece SX1000 in Existing Buildings (post-applied):
Polyfleece SX1000 is bonded directly to the concrete surface, which must be clean, free from dust, loose particles or sharp objects.

First, 2K Sealing Adhesive SX 1 is applied to the substrate and then the fleece side of the membrane is pressed into the adhesive while still wet. All short-end overlaps should be properly secured with Polyfleece Adhesive Tape and Flexproof X1.

Overlaping of longitudinal seams/overlaps:

When overlaping two longitudinal seams/overlaps to eachother, the protective films (blue on the fleece side, white on the LDPE side) must be removed before pressing the two sides against eachother. Use a pressure-roller to ensure proper adhesion between the two membranes. For additional security, Polyfleece Fleece tape can be applied over the seams/ overlaps.

Storage & Working Conditions
Temperature range: Suitable for installation in temperatures from -10°C to +40°C

For complete installation guide; Contact Hydratec or find it on our webpage.

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TECHNICAL DATA

Sizes	Unit	Tolerance	
Length (acc. DIN EN 1848-2)	20,0 m	+/-5,0 cm	MDV*
Width (acc. DIN EN 1849-2)	1,0 m	+/- 3,0 cm	MDV*
Thickness (acc. DIN EN 1849-2)	1,69 mm	+/- 5,0 %	MDV*
Weight (acc. DIN EN 1849-2)	1280 g/m²	+/- 10,0 %	MDV*

Essential characteristics	Performance	Result	
Water tightness:			
(DIN EN 1928)			
Method B	Waterpressure: 60 kPa (0,6 bar) 24 hrs.	Pass	
Method B	Waterpressure: 500 kPa (5,0 bar) 72 hrs.	Pass	
Durability against thermal aging:			
(DIN EN 1928)			
Water tightness			
Method B	Waterpressure: 60 kPa (0,6 bar) 24 hrs.	Pass	
Resistance against chemicals:			
(DIN EN 1928)			
Water tightness			
Method B	Water pressure: 60 kPa (0,6 bar) 24 hrs.	Pass	
Compatibility with bitumen:			
(DIN EN 1928)			
Water tightness			
Method B	Water pressure: 60 kPa (0,6 bar) 24 hrs.	Pass	
Tensile properties:	lengthw: (≥ 250 N/50mm)		MLV*
(DIN EN 12311-2)	across: (≥ 200 N/50mm)		MLV*
Elongation at break:	lengthw: (≥ 20,0%)		MLV*
(DIN EN 12311-2)	across: (≥ 50,0%)		MLV*
Joint strenght:			
(DIN EN 12317-2)	glued seam: ≥ 200 N/50mm		MLV*
Resistance to tearing: nail shank	lengthw: (≥ 150 N)		MLV*
(DIN EN 12310-1)	across: (≥ 150 N)		MVL*
Resistance to impact:			
(DIN EN 12691)			
Method A (Al-plate)	≤ 200 mm-drop height:	tight	MLV*
Method B (EPS-plate)	≤ 500 mm-drop height:	tight	MLV*

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Essential characteristics	Performance	Result	
Resistance to static loading: (DIN EN 12730) Method B	Imposed load: ≤ 20 kg	tight	MLV*
Water vapour permability: (DIN EN 1931) Method B	sD-Value= 170 m		MDV*
Radon diffusion coefficient:	D = 2,8 * 10^{-11} m²/s (area)		MDV*
	D = 9,2 * 10^{-12} m²/s (Joining seam)		MDV*
Reaction to fire: (DIN EN 13501-1)	class E		
Adhesion to concrete:	> 0,7 N/mm²		
Resistance to temperature:	-40°C / +100°C		

*MDV: Manufacturer´s declared value

*MLV: Manufacturer´s limiting value

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