

TECHNICAL DATA SHEET - POLYFLEECE SX100

DESCRIPTION

Polyfleece SX100 is a high-quality water- and radonproofing membrane. The membrane consists of two layers: a durable LDPE film that provides exceptional flexibility, and a fleece layer that creates adhesion to concrete. Its high flexibility allows it to effectively bridge and protect against cracks that may form in the concrete.

As a pre-applied membrane, Polyfleece SX100 is installed before the concrete is poured. The installation is fast and secure. During pouring, the fleece surface absorbs some of the cement water, creating a strong bond as the concrete cures. This integrated bond prevents water transport between the membrane and the concrete



PROPERTIES

- Flexible:**

Polyfleece SX100 is a high-quality and flexible sealing membrane that is easy to install and handle on the job site.

- Crack Bridging:**

The membrane's high flexibility allows it to effectively bridge cracks in concrete.

- Bonding:**

Polyfleece SX100 is installed before pouring, and its fleece layer absorbs some of the cement water, ensuring a strong bond and adhesion between the membrane and the concrete.

- Sealing:**

The strong bond between the membrane and the concrete prevents water or radon gas from being transported between the membrane and the concrete

- Protection:**

Provides additional safety for water- and radontight structures.



RANGE OF ARTICLES

Item.nr	Description	Width	Length	m ² /roll	m ² /pallet	Unit
1324003	Polyfleece SX100 1,0x20M	1,0 m	20 m	20	400	m ²
1324004	Polyfleece SX100 2,0x20M	2,0 m	20 m	40	800	m ²
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
174676



EPD is available for this product.
(Polyfleece SX100)

STORAGE

Polyfleece SX100 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 SX100 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 guidelines 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)

INSTALLATION

Installation of Polyfleece SX100 in fresh concrete (pre-applied/cast-in-place)

For slabs, Polyfleece SX100 is laid with its LDPE-coated side facing the surface/substrate 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 before casting.

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 SX100 in existing structures (post-applied)

Polyfleece SX100 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 (approx. 1.0 mm thick), 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.

Overlapping of longitudinal seams/overlaps:

When overlapping 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)	1,29 mm	+/- 5,0 %	MDV*
Weight (acc. DIN EN 1849-2)	800 g/m ²	+/- 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: 400 kPa (4,0 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: (DIN EN 12311-2)	lengthw: (≥ 250 N/50mm) across: (≥ 200 N/50mm)	MLV* MLV*
Elongation at break: (DIN EN 12311-2)	lengthw: (≥ 20,0%) across: (≥ 40,0%)	MLV* MLV*
Joint strenght: (DIN EN 12317-2)	glued seam: ≥ 200 N/50mm	MLV*
Resistance to tearing: nail shank (DIN EN 12310-1)	lengthw: (≥ 150 N) across: (≥ 150 N)	MLV* 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)	Imposed load: ≤ 20 kg	tight	MLV*
Water vapour permability: (DIN EN 1931) Method B	sD-Value= 92 m		MDV*
Radon diffusion coefficient:	$D = 2,8 * 10^{-11}$ m ² /s (area)		MDV*
	$D = 9,2 * 10^{-12}$ m ² /s (Joining seam)		MDV*
Reaction to fire: (DIN EN 13501-1)	class E		
Adhesion to concrete:	$> 0,4$ N/mm ²		
Resistance to temperature:	-40°C / +100°C		

*MDV: Manufacturer's declared value

*MLV: Manufacturer's limiting value