

# Polyfleece SX<sup>®</sup> 1000 Wall 290

## TECHNICAL DATASHEET

Status 02.06.2020

Item no. S01402010

### PROPERTIES

**Polyfleece SX<sup>®</sup> 1000 Wall 290** is a high quality seal fleece with a swellable coating containing modified polymers and a double-sided with PP-fleece concealed LDPE-foil. The chemical composition of the coating makes it start to expand when getting on contact with water (swelling rate appr. 150%), once the protective LDPE-coat has been damaged by mechanical attack.

**Polyfleece SX<sup>®</sup> 1000 Wall 290** is applied as external, pre- or postapplied waterproofing membrane, as holohedral seal or as linear seal of connection joints. Due to its especial characteristics the membrane integrally bonds to concrete which prevents any lateral water transport between the concrete and the membrane. All concrete surfaces in under & over ground civil engineering and tunneling engineering constructions can be sealed with **Polyfleece SX<sup>®</sup> 1000 Wall 290**.

### APPLICATION

**Polyfleece SX<sup>®</sup> 1000 Wall 290** is applied as linear or holohedral external seal for all kinds of reinforced concrete structures.

**Polyfleece SX<sup>®</sup> 1000 Wall 290** can be used for bonding to fresh concrete as a pre-applied waterproofing membrane: **Polyfleece SX<sup>®</sup> 1000 Wall 290** is laid out on the substrate with its coated side facing the blinding layer or it will be fixed with its coated side towards the formwork in wall constructions. The position of the reinforcement is directly on the uncoated side of the seal fleece, concrete is then poured on to this uncoated side of **Polyfleece SX<sup>®</sup> 1000 Wall 290**, which will suck up a part of the concrete water. By doing so it integrally bonds to the concrete from which a high peel adhesion will occur. This function prevents any undergo of water between sealing membrane and concrete effectively.

Alternatively **Polyfleece SX<sup>®</sup> 1000 Wall 290** can be post applied to existing structures. To ensure the sealing of existing buildings the fleece side faces in the direction of the construction. **Polyfleece SX<sup>®</sup> 1000 Wall 290** is installed with **2K Sealing adhesive SX<sup>®</sup> 1** on the concrete surface.

For both applications primarily the LDPE-cover seals up the concrete surface durably whereas the swelling function triggered by the effect of moisture results in pressurized swelling which builds up between the concrete and the bordering media starts to build up once the LDPE-coat is locally damaged. This moisture triggering swelling effect effectively seals even parts of the coating which have been damaged by mechanical impact as a result of the concreting process.

On the surface of **Polyfleece SX<sup>®</sup> 1000 Wall 290** isolation boards can easily be installed with solvent free adhesives by simply gluing the boards on the PP-fleece concealed surface.

### TECHNICAL DATA

Color:	white / grey / blue		
Dimensions:	length:	20,0m	(±5,0cm; MDV*)
	width:	1,0m	(±3,0cm; MDV*)
	thickness:	1,83mm	(±5,0%; MDV*)
Mass per unit area:	1.500 g/m <sup>2</sup>		(±10,0%; MDV*)

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### Water tightness:

(DIN EN 1928)

Method A

Method B

Water pressure:	2 kPa (0,02 bar)	24 hrs.	pass
Water pressure:	400 kPa (4,0 bar)	72 hrs.	pass

### Durability against thermal aging:

(DIN EN 1928)

Water tightness Method A

Water pressure:	2 kPa (0,02 bar)	24 hrs.	pass
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### Resistance against chemicals:

(DIN EN 1928)

Water tightness Method A

Water pressure:	2 kPa (0,02 bar)	24 hrs.	pass
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### Compatibility with bitumen:

(DIN EN 1928)

Water tightness Method A

Water pressure:	2 kPa (0,02 bar)	24 hrs.	pass
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### Tensile properties:

(DIN EN 12311-2)

lengthw.:	(≥ 250 N/50mm)	(MLV*)
across:	(≥ 200 N/50mm)	(MLV*)

### Elongation at break:

(DIN EN 12311-2)

lengthw.:	(≥ 20%)	(MLV*)
across:	(≥ 50%)	(MLV*)

### Joint strength:

(DIN EN 12317-2)

glued seam:	≥ 100 N/50mm	(MLV*)
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### Resistance to tearing: nail shank

(DIN EN 12310-1)

lengthw.:	(≥ 150 N)	(MLV*)
across:	(≥ 150 N)	(MLV*)

### Resistance to impact:

(DIN EN 12691)

Method A (Al-plate)

Method B (EPS-panel)

≤ 200 mm-drop height:	(MLV*)
≤ 500 mm- drop height:	(MLV*)

### Resistance to static loading:

(DIN EN 12730)

Method B

Imposed load: ≤ 20 kg	(MDV*)
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### Water vapour permeability:

(DIN EN 1931)

Method B

SD-value = 140 m

### Adhesion to concrete:

> 0,4 N/mm<sup>2</sup>

### Resistance to temperature:

-40°C / +100°C

### Reaction to fire:

class E

\*MDV: Manufacturer's declared value

\*MLV: Manufacturer's limiting value

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### PACKAGING & STORAGE

#### Dimensions

Rolls 20,0 x 1,0m

Pallet: 20x 20,0m<sup>2</sup> = 400m<sup>2</sup>

Rolls 20,0 x 2,0m

Pallet: 20x 40,0m<sup>2</sup> = 800m<sup>2</sup>

**Polyfleece SX<sup>®</sup> 1000 Wall 290** can be stored in the original unopened containers for at least 12 months at temperatures between +5° C and +25° C.

### INSTALLATION

#### Installation of **Polyfleece SX<sup>®</sup> 1000 Wall 290** in fresh concrete:

Underneath a basement slab **Polyfleece SX<sup>®</sup> 1000 Wall 290** is laid out with its coated side facing the blinding layer or it will be fixed with its coated side towards the formwork in wall constructions. The ready installed membrane has to be protected against mechanical damage by means of setting up protected walking paths and working areas. The position of the reinforcement is directly on the uncoated side of the seal fleece, concrete is then poured on to this uncoated side of **Polyfleece SX<sup>®</sup> 1000 Wall 290**, which will suck up a part of the concrete water. By doing so the concrete adheres closely to the fleece. It must be complied with a specific striking time of minimum 48 hours.

#### Installation of **Polyfleece SX<sup>®</sup> 1000 Wall 290** in existing buildings:

**Polyfleece SX<sup>®</sup> 1000 Wall 290** is bonded directly on the concrete surface. The surfaces where the seal fleece is installed on, must be firm, sustainable, clean and free of dust or loose particles. First the **2K Sealing adhesive SX<sup>®</sup> 1** is installed onto the concrete sub-surface, secondly the fleece side of **Polyfleece SX<sup>®</sup> 1000 Wall 290** is gently pushed into the humid adhesive.

Along the longitudinal seam the two protective films (blue protective film on fleece side, white protective film on opposite LDPE-side) of the self adhesive, preassembled tapes have to be removed before gluing the seam. The seam of the transverse joint must be carried out according to the installation manual.

Storing and working with **Polyfleece SX<sup>®</sup> 1000 Wall 290** is trouble free; it is neither combustible nor toxic. The working temperature of **Polyfleece SX<sup>®</sup> 1000 Wall 290** is from -10°C to +40°C (-5°C/+30°C construction device).

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### ACCESSORIES

Order no S02410290	Polymer-swellingpaste SX <sup>®</sup> 100 cartridge 290 ml
Order no S02500020	2K Sealing adhesive SX <sup>®</sup> 1 20kg
Order no S02500010	2K Sealing adhesive SX <sup>®</sup> 1 10kg
Order no S01902075	Polyfleece SX <sup>®</sup> 1000 – adhesive tape 75mm L=20m

Note:

The information on this data sheet is based on our experience and given to the best of our knowledge, but is not legally binding. Recommendations, which are at variance with those stated in this data sheet, are only binding for us, when confirmed in writing. The manufacturer is not responsible for damages resulting from the misuse or incorrect storage of the product. For the accuracy of this information we are liable within the scope of our delivery and service conditions. Creation date: 06/2020