

# PolyproofX® 1

## Hydrophilic waterstop

### TECHNICAL DATASHEET

Status 10.01.2022

Item no.: S06212005  
S06212010  
S06223030

## PROPERTIES

**PolyproofX® 1** is a polymer hydrophilic water bar based on a supreme thermo-plastic elastomer. The highly advanced elastomer is swellable which is triggered by moisture.

The outstanding characteristics of **PolyproofX® 1** are on the one hand an ultimate tensile strength and on the other hand a very high elasticity. The sealing effect is caused due to the linearly increasing swelling pressure. On contact with water a swelling capacity of up to 400 vol. % is achieved creating an enormous pressure on the surrounding concrete. The first swelling procedure is time delayed for about 72 hours. This is to ensure that the surrounding concrete has developed the necessary firmness to withstand such expansion. Uneven or rough surfaces do not have any negative influence on the swelling capacity of the water bar. The swelling procedure is reversible. **PolyproofX® 1** is also applicable in areas of varying groundwater levels. In its installed state, no considerable shrinkage is possible. Decrease in volume only occurs with the exhaustion of the surrounding air.

## APPLICATION

**PolyproofX® 1** can be applied in many different constructions: it is especially adequate in all types of chutes and prefabricated constructions. The water bar's ability to swell comes from the special hydrophilic polymers, which are enchainned with the TPE-carrier material.

**PolyproofX® 1** is resistant against most acids, bases and organic solvents, which offer a very wide range of application possibilities (clarification plant, biogas-plant, rain spillway basin, etc.).

**PolyproofX® 1 SW** is the variation particularly designed for saltwater. Special hydrophilic polymers ensure even in saltwater a controlled swelling process.

## TECHNICAL DATA

Profiles:	20 x 5 mm pimples profile 20 x 10 mm pimples profile 20 x 20 mm cavity profile 30 x 30 mm hollow chamber pimples profile 30 x 30 mm cavity profile 40 x 1 mm flat profile
Surface:	smooth
Consistency:	ductile
Colour:	blue
Swelling:	up to 400 Vol. %
Temperature resistance:	-30 °C/+60 °C

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### PACKAGING & STORAGE

20 x 5 mm	- pimples profile	20 m/coil	- 7 pieces /carton (140 m)
20 x 10 mm	- pimples profile	10 m/coil	- 7 pieces /carton (70 m)
20 x 20 mm	- cavity profile	5 m/coil	- 8 pieces /carton (40 m)
30 x 30 mm	- hollow chamber pimples profile	5 m/coil	- 6 pieces /carton (30 m)
30 x 30 mm	- cavity profile	5 m/coil	- 6 pieces /carton (30 m)
40 x 1 mm	- flat profile	150 m/coil	- 4 pieces /carton (600 m)

**PolyproofX® 1** must be stored in a dry place. Avoid mechanical damage.

### INSTALLATION

The underground surface has to be even, free of loose particles and must not show any sharp-edged displacement. Before installing ensure that ice, standing water and cement sludge are removed.

**PolyproofX® 1** is positioned along the middle of the construction joint on top of the first section, running between the reinforcing rods, and fixed with the **Contact adhesive SuperX 1**.

During installation care should be taken to ensure that **PolyproofX® 1** is securely fixed in place and will remain so during concreting. Lightly pushing the water bar into the **Contact adhesive SuperX 1** ensures optimum fixing. Uneven surfaces can be smoothed with **Polymer-swelling paste SX® 100**.

The minimal covering of concrete must be at least 8 to 10 cm on all sides.

In places of overlaps and circuit points **PolyproofX® 1** has to be bonded in parallel minimum 10 centimetres.

### ACCESSORIES

Item no. S02830290	Contact adhesive SuperX 1 cartridge 290 ml
Item no. S02830291	Contact adhesive SuperX 1 PLUS cartridge 290 ml
Item no. S02410290	Polymer-swellingpaste SX® 100
Item no. S07314515	Compression bearing profile SX1

**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: 01/2022