

SWELLFLEX® Bentonite and rubber waterstop tapes

Technical information

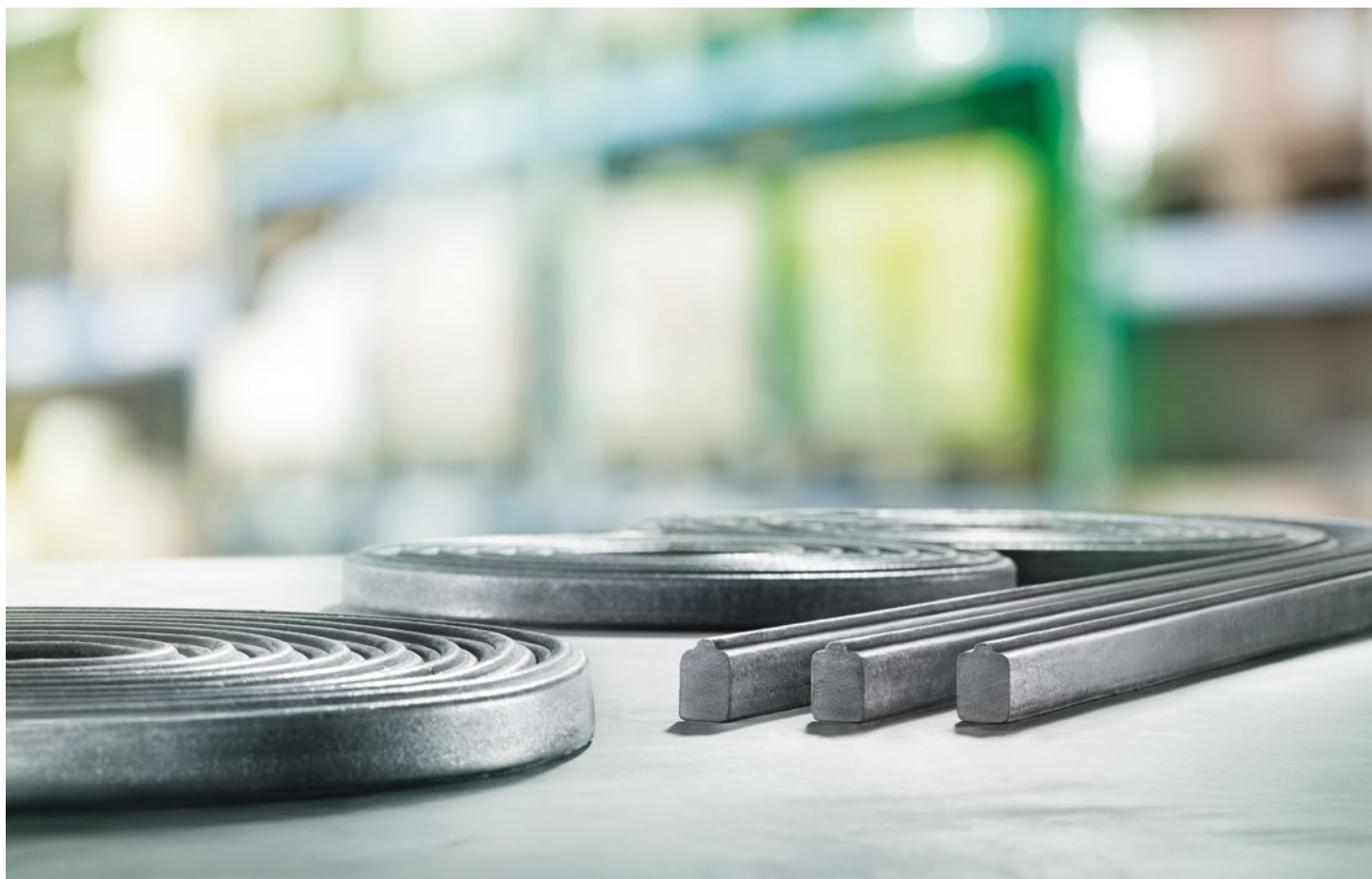


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SWELLFLEX®

Bentonite and rubber waterstop tapes

Product description

SWELLFLEX® waterstop tapes are used for sealing construction joints in concrete constructions. They can be butt jointed as their high swelling power generates sealing pressure against the surrounding concrete. Bentonite waterstop tapes create a self-injecting effect, i.e. the material penetrates into and seals all surrounding cracks and cavities. In contrast, rubber waterstop tapes retain their form, making them ideal for use in combination with prefabricated components.

Application

SWELLFLEX® high-quality waterstop tapes are used in building joints that are continuously or occasionally exposed to water under pressure. The waterstop tapes are installed between the layers of reinforcement with a minimum spacing of 80 mm.

- For sealing all horizontal and vertical building joints
- Structural, civil and construction engineering projects



Benefits

- SWELLFLEX® waterstop tapes in line with the German watertight concrete guideline (with German building code test certificate (abP))
- Resistant to ageing
- Suitable for zones subject to repeated wet and dry cycles
- Resistant to chemical and physical stresses
- Can be combined with other joint seals



Transport and storage

- Waterstop tapes must be loaded and unloaded carefully and secured for transport. After delivery, check that they are undamaged and complete.
- Waterstop tapes must be kept in the original packaging and stored in a dry and frost-free place until use.

Areas of application



In industrial halls and
production facilities



In public facilities

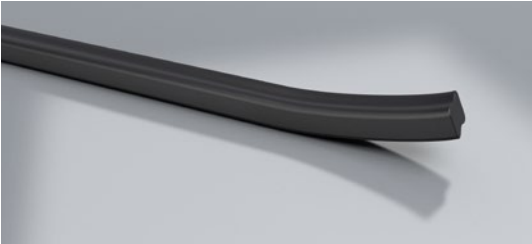


In commercial buildings



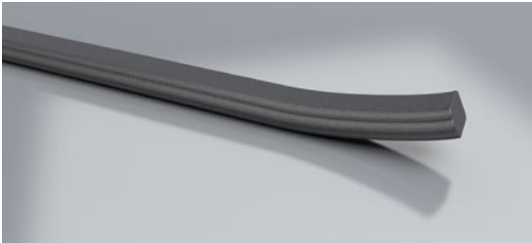
In residential buildings

System overview



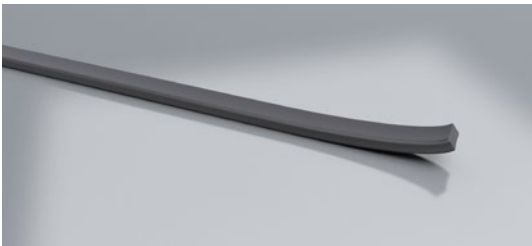
SWELLFLEX® BS

- The bentonite swelling tape is used to seal construction joints that are constantly or occasionally exposed to groundwater, water accumulating on slopes and/or surface water.
- It is made of sodium bentonite and is talc-powdered.
- Its clay-based expansion material creates a self-injecting effect when it comes into contact with water, making it ideal for in-situ concrete construction.



SWELLFLEX® BT

- SWELLFLEX® BT differs from SWELLFLEX® BS due to its additional anti-moisture protective coating, which is applied at the factory. This prevents the tape from swelling prematurely in the first two or three days as a result of rain.



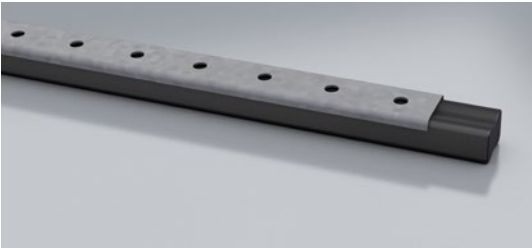
SWELLFLEX® RB

- The rubber swelling tape provides an internal joint seal and is used to protect components with high resistance to water penetration against water under pressure/not under pressure and soil moisture.
- The swelling joint sealing profile is used in a number of areas, including system building construction, element construction, tubing construction and pipe jacking.



M-Flex assembly adhesive

- For continuous installation on concrete surfaces
- 290 ml cartridges
- High yield of approx 10 m, depending on substrate



Mounting rail

- For continuous installation on concrete surfaces
- Does not include fastening materials (steel nails or knock-in anchors)
- Length/width 1.0 m/26.9 mm
- Hole spacing 20 mm
- Hole diameter 5.5 mm
- Fastener spacing <300 mm

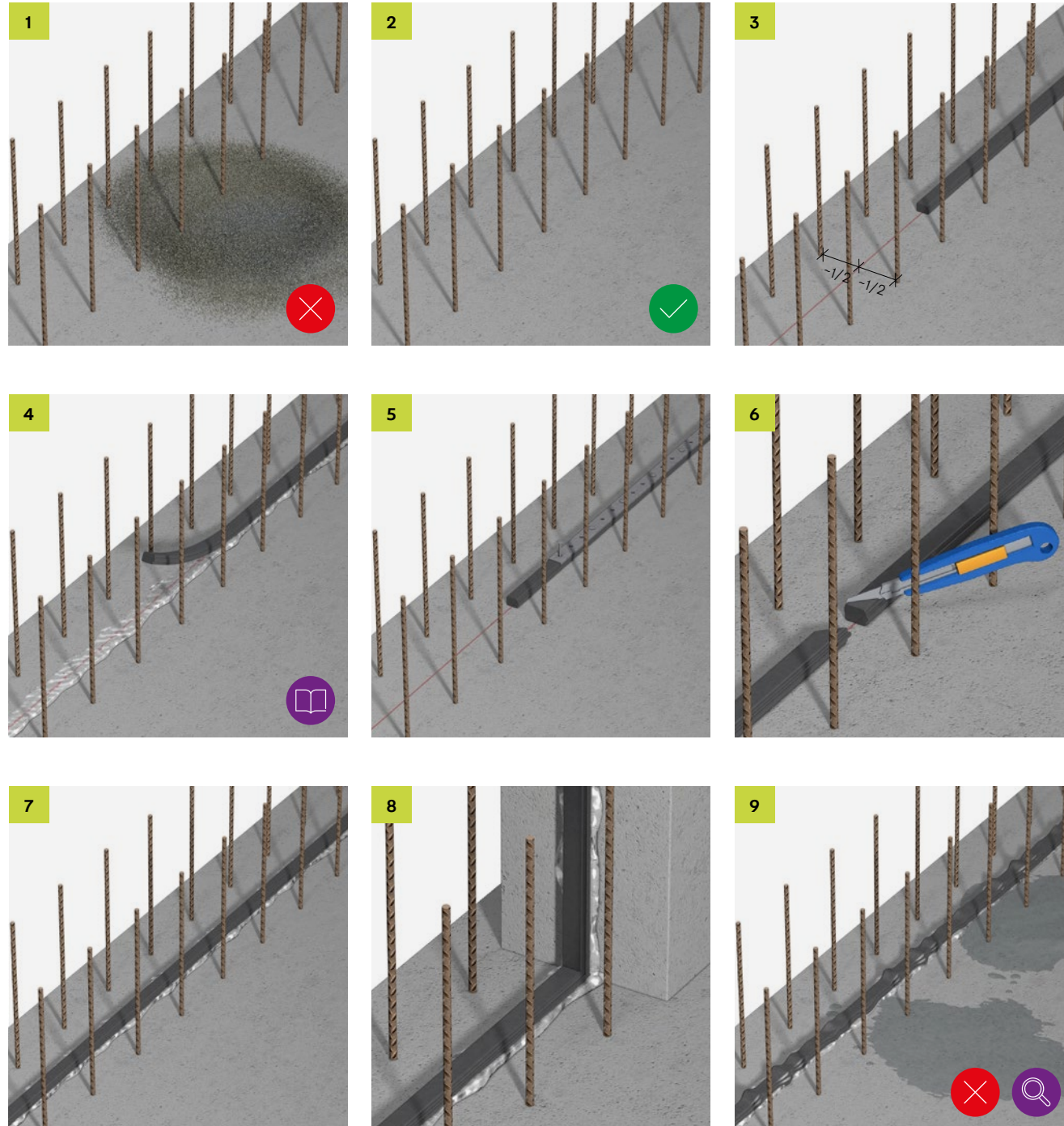
Technical information

Material parameters

	Bentonite waterstop tape		Rubber swelling tape
	SWELLFLEX® BS	SWELLFLEX® BT	SWELLFLEX® RB
Material type, components	Sodium bentonite, butyl rubber	Sodium bentonite, butyl rubber	Butyl rubber, resins that swell in water, polyethylene, silicones, special fillers
Coating	Talc-powdered	Anti-moisture protective coating	Retardant coating
Colour	Black/ dark grey	Black/ dark grey	Grey
Shape	Rectangular	Rectangular	Rectangular/round
Density [g/cm³]	~1.80	~1.80	~1.50
Dimensions [mm]	16 x 21 18 x 24	16 x 21 18 x 24	18 x 7 23 x 15 Dia. 23
Resistance to water penetration [bar] ^{1) 2)}	0.8 1.2	0.8 1.2	1.0
Swelling capacity [% by mass] ²⁾	≥180	≥100	1244 ± 10
Swelling pressure[N/mm²]		0.5	0.56
Reaction to fire ³⁾	Building material class B2 – normal flammability		Building material class E
Toxicity	Hazardous material, no poison class, no risk to drinking water		
Distance to reinforcement	At least 80mm		
Notes	Before pouring the concrete, check the waterstop tape to ensure that it has not swelled too early.	The anti-moisture protective coating only dissolves in the alkaline environment of the fresh concrete.	Does not wash away due to flowing water or excessive water pressure.

¹⁾ See standard sizes for sequence
²⁾ Test principle: joint seals in components made of concrete with high resistance to water penetration in areas that are in contact with the ground, PG-FBB, October 2012 edition
³⁾ SWELLFLEX BS/ BT: in line with DIN 4102-1, SWELLFLEX RB: in line with DIN EN 13501-1

Installation instructions



Our Application Technology department would be happy to provide you with further information.

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Our synergy concept for your benefit

With us, you benefit from the collective experience of three established manufacturers, who combine products and expertise in a comprehensive range. That is the PohlCon synergy concept.



Full-service consulting

Our extensive network of consultants is available to answer all your questions about our products on site. From planning to use, you can enjoy personal support from our qualified employees.



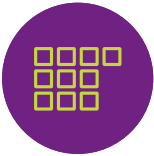
Digital solutions

Our digital solutions provide targeted support in planning with our products. From tender texts to CAD details and BIM data, right through to modern software solutions, we offer customized support for your planning process.



7 fields of application

We think in terms of holistic solutions. This is why we have combined our products into seven fields of application, where you can benefit from their synergy and the overall PohlCon product portfolio.



10 product categories

In order to find the right product in our extensive range even faster, we have divided our products into ten product categories. This way you can navigate unerringly between our products.



Individual solutions

No series product on the market is suitable for your project? We realize unique construction projects and exceptional challenges with the many years of expertise of the three manufacturing brands.



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