

## PRODUCT DATA SHEET

# SikaSwell® P Profiles

### SWELLABLE JOINT SEALING PROFILES

#### DESCRIPTION

Sealing profiles which swell in contact with water to seal all types of joints and penetrations in concrete.

#### USES

To seal:

- Construction joints
- Pipe and steel work penetrations through walls and floor slabs
- Construction joints in precast concrete
- Construction joints in tunnel segments
- Construction joints in cable ducts, etc.
- Around all types of penetrations through concrete

#### CHARACTERISTICS / ADVANTAGES

- Easy to apply
- Can be applied on different substrates
- Coated with protective layer to avoid premature swelling
- Highly economical
- Swells in contact with water
- Water resistant
- No hardening time required
- No welding required
- Adaptable to fit many different detailing tasks
- Different types and dimensions available

#### APPROVALS / CERTIFICATES

- Water Permeability DIN 1048, SikaSwell® P-2507 H, PSB Corporation, Test report No. 54S022997/ST/ED
- Water Tightness SikaSwell® P-2003, STUVA, Test report No. FSO-KE46
- Water Tightness SikaSwell® P-2010 H, STUVA, Test report No. FSO-KE44

#### PRODUCT INFORMATION

##### Composition

Red outer: Combination of hydrophilic swelling resins and rubber  
Black inner core: EPDM

##### Packaging

Rolls packed in cardboard boxes, quantity depending on type of profile, consult the dimensions table.

##### Appearance / Colour

###### Mono Types

Plain section swelling profiles  
Highly swellable red profiles

###### Hybrid Types

Plain-section or hollow-core hybrid swelling profiles  
Dual swellable profiles  
Red outer covering: Highly swellable red part  
Black inner core: Swellable part

<b>Shelf life</b>	48 months from date of production			
<b>Storage conditions</b>	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.			
<b>Dimensions</b>	Highly swellable profiles:			
	<b>Type</b>	<b>Width mm</b>	<b>Thickness mm</b>	<b>Metres/Box</b>
	2003	20	3	1 × 10 = 10 7 × 20 = 140
	2005	20	5	1 × 10 = 10 7 × 20 = 140
	2010	20	10	1 × 10 = 10 5 × 10 = 50
	Dual swellable with stabilizing inner core:			
	<b>Type</b>	<b>Width mm</b>	<b>Thickness mm</b>	<b>Metres/Box</b>
	2010 H	20	10	1 × 10 = 10 5 × 10 = 50
	Dual swellable profile with pressure relief chambers:			
	<b>Type</b>	<b>Width mm</b>	<b>Thickness mm</b>	<b>Metres/Box</b>
2507 H	25	7	1 × 10 = 10 5 × 10 = 50	
Other profiles available on request.				

## TECHNICAL INFORMATION

<b>Shore A hardness</b>	Hydrophilic swelling red part	75 ± 5	(DIN 53505)
	EPDM black part	80 ± 5	
<b>Tensile strength</b>	Hydrophilic swelling red part	≥ 2,5 N/mm <sup>2</sup>	(DIN 53504)
	EPDM black part:	≥ 7,0 N/mm <sup>2</sup>	
<b>Elongation</b>	Hydrophilic swelling red part	≥ 250 %	(DIN 53504)
	EPDM black part	≥ 100 %	
<b>Change of volume</b>	Hydrophilic swelling red part		
	7 days in tap water	≥ 100 %	(DIN 53521)
	14 days in tap water	≥ 150 %	
	10 dry-wet cycles in tap water	≥ 100 %	
1 cycle = 7 days dry and 7 days in tap water			
<b>Swelling pressure</b>	≤ 15 bar after 7 days stored in tap water		
<b>System structure</b>	The following system products must be used: <ul style="list-style-type: none"> <li>▪ SikaSwell® P Profiles</li> <li>▪ SikaSwell® S-2 Sealant</li> </ul>		

## APPLICATION INFORMATION

<b>Substrate moisture content</b>	Dry or matt damp. Do not apply in construction joints when standing water is existing.
<b>Ambient air temperature</b>	+5 °C min. For installation below +5 °C ambient temperature, special measures are required in accordance with relevant national regulations and Sika

<b>Substrate temperature</b>	+5 °C min. For installation below +5 °C substrate temperature, special measures are required in accordance with relevant national regulations and Sika guidelines
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## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

The substrate must be sound, clean, dry, 'matt damp', free from all surface contaminants

### SUBSTRATE PREPARATION

#### Existing concrete

All loose particles, release agents, laitance, paint, rust and other poorly adhering materials must be removed by suitable hand or mechanical preparation.

#### Freshly cast concrete

During concreting, compact well around SikaSwell® P Profiles profiles to provide a dense concrete without any honeycombing or voids.

Surfaces which are excessively rough can be susceptible to leaking. It is recommend to smoothen the freshly cast concrete with a batten where the sealing profile is to be placed.

### APPLICATION METHOD / TOOLS

#### SikaSwell® S-2 Sealant application

Apply SikaSwell® S-2 in a narrow bed (size of triangular section ~5 mm) onto the prepared substrate. Extrude sufficient quantity to level the roughness of the substrate. Refer to the SikaSwell® S-2 Product Data Sheet

#### SikaSwell® P Profiles application

Cut the SikaSwell® P Profiles to the required length. Place profiles in the centre of the concrete section. Press the SikaSwell® P Profiles into the freshly applied SikaSwell S-2 until a small quantity is extruded from both sides of the profile to achieve a full surface bond. The profiles must be placed within max. 30 minutes. Connections and corners must be butt jointed and fixed. Allow SikaSwell® S-2 to harden for 2–3 hours before placing concrete. Protect the SikaSwell® P Profiles profiles against water (e.g. rain) until the concrete is placed.

### CLEANING OF EQUIPMENT

Clean all tools and application equipment with Sika® Colma-Cleaner immediately after use. Hardened material (adhesive) can only be mechanically removed.

## IMPORTANT CONSIDERATIONS

- Ensure a full and continuous contact between the SikaSwell® P Profiles profiles and the substrate is achieved.
- The SikaSwell® P Profiles profiles require a reinforced concrete / concrete cover of at least 8 cm.
- Minimum cover to profiles on both sides must be 10 cm (reinforced concrete) or 15 cm (non reinforced concrete).
- SikaSwell® P Profiles profiles expand in contact with water. This does not occur immediately, but slowly

after several hours. It is advisable not to leave SikaSwell® P Profiles profiles in the open air or exposed to rain water (max. 24 hours as long as water can drain away)

- Do not use profiles for movement joints.
- If the water level suddenly increases the watertightness of joints will only be achieved after SikaSwell® P Profiles profiles have swollen.
- In a totally dry state, SikaSwell® P Profiles profiles shrink to their original dimensions then expands again in contact with water.
- Do not use SikaSwell®-P Profiles for sealing against water pressures higher than 2 bar.
- If profiles are to be fixed around small diameter pipes use additional mechanical fixing with tie wire or a sleeve.

## BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

## ECOLOGY, HEALTH AND SAFETY

### REGULATION (EC) NO 1907/2006 - REACH

This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in the product data sheet. Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0,1 % (w/w).

## LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, sub-

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strates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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