

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
- Swells in contact with water
- Coated with protective layer to avoid premature swelling
- Water resistant
- No hardening time required
- Can be applied on different substrates
- 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 layer: Combination of hydrophilic swelling resins and rubber
Black inner core: EPDM

Packaging

Mono Types

SikaSwell® P 2003	7 × 20 m = 140m	Box with 7 rolls
SikaSwell® P 2005	7 × 20 m = 140m	Box with 7 rolls
SikaSwell® P 2010	1 × 10 m = 10 m, 5 × 10 m = 50 m	Box with 1 or 5 rolls

Hybrid Types

SikaSwell® P 2010 H	5 × 10 m = 50 m	Box with 5 rolls
SikaSwell® P 2507 H	1 × 10 m = 10 m, 5 × 10 m = 50 m	Box with 1 or 5 rolls

Refer to current price list for packaging variations.

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 section

Black inner core: Swellable section



Shelf life

48 months from date of production

Storage conditions

The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.

Dimensions

Mono Types

Type	Width mm	Thickness mm
2003	20	3
2005	20	5
2010	20	10

Hybrid Types

Type	Width mm	Thickness mm
2010 H	20	10
2507 H	25	7

Other profiles available on request

TECHNICAL INFORMATION

Shore A Hardness

Mono Types

45 ± 5 (DIN 53505)

Hybrid Types

Red (polyolefinic) 45 ± 5 (DIN 53505)

Black (EPDM) 80 ± 5

Tensile Strength

>1,3 N/mm² (DIN 53504)

Elongation

>300 % (DIN 53504)

Change of Volume

Volume change in Standard Water (according to ISO 1817)

<u>Storage Time (Days)</u>	<u>Volume Change (%)</u>
1	> 100
3	> 200
7	> 300

Volume change in Sea Water (according to ISO 1817)

Storage Time (Days)	Volume Change (%)
1	> 10
3	> 20
7	> 25

Swelling Pressure ≤ 15 bar after 7 days stored in tap water

SYSTEMS

System Structure The following system products must be used:

- SikaSwell® P Profiles
- SikaSwell® S-2 Sealant

APPLICATION INFORMATION

Substrate Moisture Content Dry or matt damp. Do not apply in construction joints when standing water is existing.

Ambient Air Temperature +5 °C min. For installation below +5 °C ambient temperature, special measures are required in accordance with relevant national regulations and Sika guidelines

Substrate Temperature +5 °C min. For installation below +5 °C substrate temperature, special measures are required in accordance with relevant national regulations and Sika guidelines

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate must be sound, clean, dry or matt-damp and 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

Important: The profiles must be placed within max. 30 minutes.

Important: Connections and corners must be butt jointed and fixed.

Important: Allow SikaSwell® S-2 to harden for 2–3 hours before placing concrete.

Important: Allow SikaSwell® S-2 to harden for a minimum 24 hours before placing concrete.

Important: Protect the SikaSwell® P Profiles profiles against water (e.g. rain) until the concrete is placed.

Important: Make sure full and continuous contact is made between the SikaSwell® P Profiles and the SikaSwell S-2 coated substrate.

Important: The SikaSwell® P Profiles profiles require a

reinforced concrete / concrete cover of at least 8 cm. **Important:** Minimum cover to profiles on both sides must be 10 cm (reinforced concrete) or 15 cm (non reinforced concrete).

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

1. Cut the SikaSwell® P Profiles to the required length.
2. Place profiles in the centre of the concrete section.
3. Press the SikaSwell® P Profiles into the freshly applied SikaSwell S-2 until a small quantity is extruded from both sides of the profile.

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

- 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 the profiles in the open air or exposed to rain water. Limit exposure to a maximum of 24 hours making sure any water can drain away.
- Do not use profiles for movement joints.
- The watertightness of joints will only be achieved after SikaSwell® P Profiles profiles have swollen.
- In a totally dry state, the profiles shrink to their original dimensions then expand again when in contact with water.
- Do not use SikaSwell®-P Profiles for sealing against

- water pressures higher than 2 bar.
- Fix profiles around small diameter pipes using additional mechanical fixings using tie wires or a sleeve.

BASIS OF PRODUCT DATA

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

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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 this 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, substrates 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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