

PRODUCT DATA SHEET

SikaSwell® P Type H

Hydrophilic swellable joint sealing profiles with rubber core

DESCRIPTION

SikaSwell® P Type H is a hybrid profile with superabsorbents and a rubber core. It swells in contact with water to seal all types of construction joints and penetrations in concrete structures.

USES

The Product is used for the following waterproofing applications:

- Construction joints
- Pipe and steel work penetrations through walls and floor slabs
- Around all types of penetrations and connection joints
- Construction joints in cable ducts
- With pre-cast element structures

PRODUCT INFORMATION

Chemical Base	Red outer layer	Elastomer matrix with superabsorbents
	Black inner core	EPDM
Packaging	Single rolls packed in vacuum foil. Multiple single rolls packed in cardboard boxes. Refer to the current price list for available packaging variations.	

CHARACTERISTICS / ADVANTAGES

- Mechanical stability due to rubber core
- Highly economical joint sealing solution
- Versatile solution for joints and details
- Protective layer prevents premature swelling
- Permanently water resistant (wet & dry cycles)
- Resistant to many chemicals
- Fast and easy to apply
- Good adhesion to various substrates

APPROVALS / STANDARDS

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

Appearance / Colour



Profile before swelling (left) and after swelling (right)

Shelf Life	48 months from the 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.			
Density	1.20 kg/L			(DIN 53479)
Dimensions	Type	Width	Height	Length
	SikaSwell® P 2010 H	20 mm	10 mm	10 m

TECHNICAL INFORMATION

Shore A Hardness	Red outer layer	(45 ± 5)	(DIN 53505)	
	Black inner core	(80 ± 5)		
Tensile Strength	Black inner core	≥ 7.0 N/mm ²	(DIN 53504)	
Elongation at break	Black inner core	≥ 400 %	(DIN 53504)	
Change of Volume	Time	Demineralised water	5 % saline solution	(ISO 1817)
	1 day	> 100 %	> 10 %	
	7 days	> 300 %	> 25 %	
	Note: Swelling properties in saline water will be reduced and delayed. Use SikaSwell® A Maritim version.			
	Note: In a totally dry state, SikaSwell® P Type H shrinks to the original dimensions. The profile then expands again upon further contact with water.			
Swelling Pressure	The pressure developed by the material depends on the stiffness of the surrounding concrete structure, which is influenced by the concrete quality, voids, gaps and other weaknesses. Note: In an ideal concrete structure the material can develop a swelling pressure up to > 10 bar.			
Service Temperature	Minimum	-20 °C		
	Maximum	+50 °C		

SYSTEM INFORMATION

System Structure	Adhesive	SikaSwell® S-2
	Swelling profile	SikaSwell® P Type H

APPLICATION INFORMATION

Substrate Moisture Content	Dry or matt damp. Do not apply in construction joints with existing standing water.	
Ambient Air Temperature	Minimum	+5 °C
	Maximum	+35 °C
Substrate Temperature	Minimum	+5 °C
	Maximum	+35 °C

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.

LIMITATIONS

- Do not use SikaSwell® profiles for movement joints.
- SikaSwell® profiles expand when in contact with water. This is not instantaneous and will take a few hours.
- The Product is recommended for sealing against water pressures up to 2 bar. For pressures higher than 2 bar use an alternative or supplementary Sika Joint Sealing solution or contact Sika Technical Services for further information.

ECOLOGY HEALTH AND SAFETY

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)

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate must be sound, clean, dry or matt damp, free from all surface contaminants that could impair the adhesion.

SUBSTRATE PREPARATION

EXISTING CONCRETE

Rough surfaces are susceptible to leaking. If the surface roughness cannot be leveled with SikaSwell® S-2 the roughness need to be removed by an appropriate Sika leveling mortar or mechanical treatment before the SikaSwell® S-2 and SikaSwell profile is applied.

FRESHLY CAST CONCRETE

Freshly cast concrete can be smoothed with a batten where SikaSwell® S-2 is to be placed.

APPLICATION

IMPORTANT

Concrete cover

Insufficient concrete cover, low density concrete or voids will prevent the SikaSwell® profile from developing its waterproofing function.

1. Place the SikaSwell® profile in the centre of the concrete structure.
2. In reinforced concrete maintain a minimum cover of 8 cm on both sides.
3. In unreinforced concrete maintain a minimum cover of 15 cm on both sides.

SEALANT WITH A SIKASWELL® PROFILE

1. Apply SikaSwell® S-2 adhesive in a narrow bed (size of triangular section ~12 mm tall and ~12 mm wide) onto the prepared substrate. Extrude enough material to level the roughness of the substrate.
2. Press the SikaSwell® profile firmly into the fresh applied SikaSwell® S-2. Place the SikaSwell® profile within a maximum of 30 minutes (+23 °C / 50 % r.h.).
3. Ensure full and continuous contact between the SikaSwell® S-2 and both the SikaSwell® profile and the substrate is achieved.
4. Allow SikaSwell® S-2 to harden minimum 12 hours before placing concrete. For pouring height > 50 cm, SikaSwell® S-2 must harden for at least 24 hours before placing concrete.
5. Protect the SikaSwell® S-2 and the SikaSwell® profile against water (for example, rain) until the concrete is placed.
6. During placement compact the fresh concrete well around the SikaSwell® profile to achieve dense concrete without any honeycombing or voids.

CLEANING OF TOOLS

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

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.

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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