BUILDING TRUST

PRODUCT DATA SHEET

SikaSwell® A

Hydrophilic swellable joint sealing profiles

DESCRIPTION

SikaSwell® A is a rectangular acrylic sealing profile. It swells in contact with water to seal all types of construction joints and penetrations in concrete structures.

USES

Joint sealing:
- 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

CHARACTERISTICS / ADVANTAGES

- Highly economical joint sealing solution
- Unique properties fill small cracks and voids
- Versatile solution for joints and details
- Permanently water resistant (wet & dry cycles)
- Resistant to various chemical substances
- Easy and fast to apply
- Can be applied on different substrates
- BBA system approvals with SikaSwell S-2
- Available in different sizes

ENVIRONMENTAL INFORMATION

- Conforms with LEED v4 MR credit: Building product disclosure and optimization — Material ingredients (option 2)

APPROVALS / STANDARDS

- Resistance to water pressure and durability SikaSwell® A2010, SikaSwell® S-2, BBA, Certificate No.13/4994
- Functional watertightness test, SikaSwell® A, WISS-BAU, Test report No. 2012-206
- Test Report, Water tightness testing of hydrophilic waterstop, Vattenfall,Report No.1278-10

PRODUCT INFORMATION

Chemical Base	Acrylic polymer
Packaging	Single rolls packed in vacuum foil. Multiple single rolls packed in cardboard boxes. Refer to current price list for packaging variations.

Appearance / Colour

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

Shelf Life

36 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

1.50 kg/l (at +23 °C) (EN ISO 2811-1)

Dimensions

Type	Width	Height	Length
SikaSwell® A 2010	20 mm	10 mm	10 m

TECHNICAL INFORMATION

Shore A Hardness

(10 ± 5) (DIN 53505)

Service Temperature

Maximum	+50 °C
Minimum	-20 °C

Change of volume

Time	Demineralised water
1 day	~50 %
7 days	~130 %
30 days	~150 %

(EN 14498)

Note: Swelling properties in saline water will be reduced and delayed. Use SikaSwell® A Maritim version.
Note: In a totally dry state the Product shrinks to its original dimensions. The product 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.

APPLICATION INFORMATION

Ambient Air Temperature

Maximum	+35 °C
Minimum	+5 °C

Substrate Temperature

Maximum	+35 °C
Minimum	+5 °C

Substrate Moisture Content

Dry or matt damp. Do not apply in construction joints with existing standing water.

SYSTEM INFORMATION

System Structure		
	Adhesive	SikaSwell® S-2
	Swelling profile	SikaSwell® A

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

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet (MSDS) containing physical, ecological, toxicological and other safety-related data.

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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