

## **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

### **SUSTAINABILITY**

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

## **APPROVALS / CERTIFICATES**

- 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

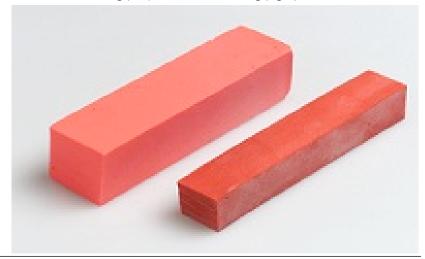
#### PRODUCT INFORMATION

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

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

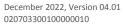


Shelf life	36 months from the date of production				
Storage conditions	aging in dry con	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.			
Density	1.50 kg/l (at +23	1.50 kg/l (at +23 °C) (EN ISO 2			
Dimensions	Туре	Width	Height	Length	
	SikaSwell® A	20 mm	5 mm	20 m	
	2005				
	SikaSwell® A	20 mm	10 mm	10 m	
	2010				
	SikaSwell® A	20 mm	15 mm	7 m	
	2015				
	SikaSwell® A	20 mm	25 mm	5 m	
	2025				

## **TECHNICAL INFORMATION**

Shore A hardness	(10 ± 5)		(DIN 53505)
Change of volume	Time	Demineralised water	(EN 14498)
	1 day	~50 %	
	7 days	~130 %	
	30 days	~150 %	
	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.		
Service temperature	Maximum	+50 °C	
	Minimum	-20 °C	







#### SYSTEM INFORMATION

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

#### APPLICATION INFORMATION

Substrate moisture content	Dry or matt damp. Do not apply in construction joints with existing standing water.		
Ambient air temperature	Maximum	+35 °C	
	Minimum	+5 °C	
Substrate temperature	Maximum	+35 °C	
	Minimum	+5 °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.

## **IMPORTANT CONSIDERATIONS**

- 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 Safety Data Sheet (SDS) 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 EQUIPMENT**

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



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#### LOCAL RESTRICTIONS

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

#### **LEGAL NOTES**

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

## Sika Danmark A/S

Hirsemarken 5 3520 Farum Tlf. +45 48 18 85 85 www.sika.dk







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