

## PRODUCT DATA SHEET

# SikaSwell® A (AE)

(formerly MasterSeal® 910)

Hydrophilic swellable joint sealing profiles

### DESCRIPTION

SikaSwell® A (AE) 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

### FEATURES

- 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
- Available in different sizes

### SUSTAINABILITY

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

### PRODUCT INFORMATION

<b>Composition</b>	Acrylic polymer			
<b>Packaging</b>	Single rolls packed in vacuum foil. Multiple single rolls packed in cardboard boxes. Refer to current price list for packaging variations.			
<b>Shelf life</b>	12 months from the date of production			
<b>Storage conditions</b>	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.			
<b>Dimensions</b>	<b>Type</b>	<b>Width</b>	<b>Height</b>	<b>Length</b>
	SikaSwell® A (AE) 2005	20 mm	5 mm	20 m
	SikaSwell® A (AE) 2010	20 mm	10 mm	10 m
<b>Density</b>	~1.50 kg/l (at +23°C)			

## TECHNICAL INFORMATION

Change of volume	<b>Time</b>	<b>Demineralised water</b>	(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 of >10 bar.		
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Service temperature	Maximum	+50°C
	Minimum	-20°C

## SYSTEM INFORMATION

System structure	Adhesive	SikaSwell® S-2
	Swelling profile	SikaSwell® A (AE)

## 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
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## 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.
- Internal Reference - Version: MBS\_CC-UAE/ SI\_910\_12\_94/v1/11\_13/v2/12\_19

## IMPORTANT CONSIDERATIONS

- Do not use SikaSwell® A (AE) profiles for movement joints.
- SikaSwell® A (AE) 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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains 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® A (AE) 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 SikaSwell® A (AE)

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® A (AE) firmly into the fresh applied SikaSwell® S-2. Place the SikaSwell® A (AE) 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® A (AE) 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® A (AE) against water (for example, rain) until the concrete is placed.
6. During placement compact the fresh concrete well around the SikaSwell® A (AE) 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.

## 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 exact product data and uses.

## 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.

#### Sika Gulf B.S.C. (c)

Tel: +973 177 38188

Email: info@bh.sika.com

Sika Kuwait Cons. Mat. & Paints Co WLL

Tel: +965 22 282 296

Email: sika.kuwait@kw.sika.com

Web: gcc.sika.com

#### Sika UAE LLC

Sika MB Construction Chemicals LLC

Sika International Chemicals LLC

Tel: +971 4 439 8200

Email: info@ae.sika.com

Web: gcc.sika.com

#### Sika Saudi Arabia Limited

Riyadh / Jeddah / Dammam / Rabigh

Tel: +966 11 217 6532

Email: info@sa.sika.com

Web: gcc.sika.com

#### Sika LLC - Oman

Master Builders Solutions LLC

(part of Sika)

Tel: +968 22 826 500

Email: info@om.sika.com

Web: gcc.sika.com



ISO 9001, 14001, 45001 – SGS  
-Sika UAE LLC  
-Sika International Chemicals LLC  
-Sika Gulf B.S.C. (c)  
ISO 9001, 14001 – SGS  
-Sika Saudi Arabia Limited  
ISO 9001, 14001 – TÜV  
-Sika MB Construction Chemicals LLC  
-Master Builders Solutions LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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