**Technical Data Sheet** Edition 2, 2005 Identification no. 02 07 03 06 001 0 000002 Version no. 0010 **SikaSwell<sup>®</sup> S-2** 

# SikaSwell<sup>®</sup> S-2

# Swellable Sealant

Description	One component polyurethane sealant which swells in contact with water.		
Use	To seal waterproof-structures and fix waterstops or injection hoses.  Sealing:  Construction joints  Pipe penetrations through walls and floor slabs.  Penetrations of any kind  Fixation:  Sika Injectoflex-System Type HP and Type NS  Sika Swell-Profiles		
Advantages	<ul> <li>Swells in contact with water</li> <li>Easy, simple application</li> <li>Good adhesion to various substrates.</li> <li>Optimized expansion rate, therefore no damage to fresh concrete during curing.</li> <li>Highly economical.</li> <li>Permanently water resistant, no leaching</li> <li>Elastic</li> </ul>		
Technical Data			
Basis	1-part polyurethane, moisture curing		
Color	Oxide Red		
Density	1.33 kg/ ltr		
CURING RATE	Tack free: after 2-3 hrs		
(+23°C, 50% r.h)	Curing time: after 1 day 2 mm		
	after 10 days 10 mm		
Sag Flow	< 2 mm		
SHORE A HARDNESS	Swollen (7 days in tap water): >10		
(DIN 53 505)	Non Swollen (7days: +23°C / 50% r.H): 40-60		
Swelling Capacity	1 day in water: < 25% 7 days in water > 100 %		
	Reduced and delayed swelling properties in salty water		
	Stored in unopened, undamaged original packing at +25°C.		
Storage/Shelf Life	Stored in unopened, undamaged original packing at +25°C.		
Storage/Shelf Life	Stored in unopened, undamaged original packing at +25°C.  Shelf life is 9 months from date of production.		





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### **Application**

## Application temperature

Substrate **Application** 

Material/ Substrate: +5°C to +35°C

The substrate should be dry, max. mat moist, free from all surface contaminants For the fixation of SikaSwell-Profiles and injection hoses A thin bead SikaSwell S-2 (size of triangular section approx.10 mm) is applied to smooth substrates. In case of uneven substrates the layer thickness must be adjusted accordingly. SikaSwell-Profiles or injection hoses must be pressed well into the fresh SikaSwell S-2. Concreting should not take place before two or there hours.

#### As sealant

Cut the nozzle to obtain a regular triangular extrusion section and apply SikaSwell S-2 according to following table.

Structure thickness	Size of triangular section	Theoretical yield of 600 ml unipacs
< 30 cm	15 mm	6.1 m
30 – 50 cm	20 mm	3.5 m

SikaSwell S-2 should be placed in the center of the concrete section. Concreting should not take place before three hours.

During concreting, compact well around SikaSwell S-2 to provide a dense concrete without any honeycombs or voids.

#### **Important Notes**

- SikaSwell S-2 swells in contact with water. This does not happen immediately. but slowly after a few hours. Nevertheless it is advisable not to leave SikaSwell S-2 any length of time in standing water. Exposure to a rain shower does not have any negative impact as long as the water can drain away.
- Do not use for movement joints!
- If water level suddenly increases the watertightness of joints cannot be immediately assured since SikaSwell S-2 needs time to expand.
- In totally dry state SikaSwell S-2 shrinks to its original dimensions, but expands again in contact with water.
- Although SikaSwell S-2 has been tested to water pressure up to 5 bar, it is not recommended for sealing against water pressure higher than 2 bar because of the limited sealing distance. For pressures > 2 bar SikaSwell S-2 can be used to fix Sika Injectoflex Hoses or as a supplementary sealing measure to Sika
- SikaSwell S-2 should be placed in the centre of the concrete section. Minimum cover on both sides must be 10 cm (in reinforced concrete), or 15 cm (in non reinforced concrete).

#### **Safety Instruction**

#### **Safety Precaution**

Wear gloves to avoid allergic reactions. Change clothes after application and wash hands with soap and water (see material safety data sheet)

**Ecology** 

In liquid state SikaSwell S-2 should not be disposed of into sewer, water or Soil, but according to local regulations.

**Toxicity** 

Non-toxic under the relevant Swiss Health and Safety Codes

#### **Transport**

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 product when properly stored, handled and applied under normal conditions in accordances 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.



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