

SikaSwell® S-2

Swellable Sealant

Product Description SikaSwell® S-2 is a one-component polyurethane sealant which swells in contact with water. Suitable for use in hot and tropical climates.

Uses SikaSwell® S-2 is used to seal waterproof-structures and fix SikaSwell®-P Profiles or Sika® Injectoflex Hoses.

Sealing of:

- Construction joints
- Pipe penetrations through walls and floor slabs
- Around all types of penetrations and construction joints
- Construction joints in cable ducts etc.

Bonding adhesive for:

- Sika® Injectoflex-System Type HP (M) and Type NS
- SikaSwell®-P Profiles

Advantages

- Easy, simple application
- Good adhesion to various substrates
- Optimized expansion rate, therefore no damage to fresh concrete during curing
- Highly economical
- Swells in contact with water
- Permanently water resistant
- Adaptable to fit many different detail tasks

Product Data

Form Paste

Colour Oxide red

Packaging 600 ml unipacs (20 unipacs / box, 48 boxes / pallet)
300 ml cartridges (12 cartridges / box, 112 boxes / pallet)

Storage Condition Store in a cool, dry position in unopened, undamaged original packaging at temperatures between +5°C and 25°C.

Shelf life Minimum 9 months from date of production if stored in original unopened packaging.

Technical Data

Chemical Base 1-Part polyurethane moisture curing

Density (+23°C) Approximately 1.33 kg/lit



Curing rate (+23°C, 50%r.h.)	Tack free: after 2 - 3 hrs. Curing time: after 1 day after 10 days	approximately 2 mm approximately 10 mm
Sag-Flow	< 2 mm	
Shore A Hardness (DIN 53 505)	Swollen (7 days in tap water): Non swollen:	> 10 40 – 60
Swelling capacity	1 day in water: < 25 % 7 days in water > 100 % Reduced and delayed swelling properties in salty water.	
* All above values are approximate.		

System Information

Application Details

Substrate Quality	The substrate should be sound, clean, dry, maximum matt moist, free from dust, soil and other loose particles, release agents and rust.
Substrate Preparation	All loose particles, release agents, laitance, paint, rust and other poorly adhering materials must be removed by suitable hand or mechanical preparation techniques.

Application Conditions / Limitations

Substrate Temperature	+ 5°C min. / to + 35°C max.
Ambient Temperature	+ 5°C min. / to + 35°C max.
Substrate Humidity	The substrate must be dry, maximum matt moist.

Application Instructions

Application Method ? Tools

For the fixation of SikaSwell®-P Profiles and Sika® Injectoflex Hoses.
Apply **SikaSwell® S-2** (through triangular nozzle of approximately 5 mm sections) to prepared substrates. In case of uneven substrates the extruded triangular section of **SikaSwell® S-2** must be adjusted accordingly. SikaSwell®- P Profiles or Sika Injection Hoses must be pressed well into the fresh **SikaSwell® S-2**. Allow **SikaSwell® S-2** to harden for 2-3 hours before placing concrete. Please consult the product data sheet of the mentioned products.
As a buried sealant for construction joints:
Cut the nozzle to obtain a regular triangular extrusion section and apply **SikaSwell® S-2** according to the following table.

Structure thickness	Size of triangular section	Theoretical yield of 600 ml unipacs
< 30 cm	15 mm	6.2 m
30 – 50 cm	20 mm	3.6 m

* The actual yield can be lower than the theoretical yield depending on job-site conditions (substrate roughness, size of aggregates etc.)

SikaSwell® S-2 should be placed in the centre of the concrete section. For pouring heights up to 50 cm, concreting should not take place before 2 – 3 hours. If the pouring height is > 50cm the curing time of **SikaSwell® S-2** should be at least 2 days. During concreting care must be taken that **SikaSwell® S-2** is completely covered with a dense concrete without any honeycombs or voids. This is best achieved by placing a mortar or fine concrete breast of approximately 10 cm thickness (reinforced concrete) or 150 mm.

Cleaning	Clean application tools immediately after use with Colma Cleaner. Hardened / cured material can only be removed mechanically.
-----------------	---

Important

- **SikaSwell® S-2** expands 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 (maximum 24 hours as long as the water can drain away).
- Do not use for movement joints!
- If water level suddenly increases, the water-tightness of joints cannot be immediately assured since **SikaSwell® S-2** needs time to expand.
- In a 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 pressures of up to 5 bar, it is not recommended for water pressures higher than 2 bar because of the limited sealing distance. For pressures > 2 bar it can be used as a fixation material for Sika® Injection Hoses or as a supplementary sealing measure for Sika® Waterbars.
- **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).

Notes

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.

Health and Safety Information

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

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)
 Bldg. 925, Road 115, Sitra Area 601
 P.O. Box 15776
 Adliya, Kingdom of Bahrain
 TEL: +973 17738 188
 Fax: +973 17732 476
 E-mail: sika.gulf@bh.sika.com
 Web: <http://www.sika.com.bh>

