Construction

SikaSwell® S-2

Hydrophilic Polyurethane Sealant

Description	SikaSwell S-2 is one component polyurethane sealant which swells in contact with water.
Uses	To seal waterproof-structures and fix swellable profile or injection hoses. Sealing: ■ Construction Joints ■ Pipe penetrations through walls and floor slabs ■ Penetrations of any kind Fixation: ■ SikaFuko Swell 1 ■ SikaSwell-Profiles
Advantages	■ Easy and simple application ■ Good adhesion to various substrates ■ Optimised expansion rate, therefore no damage to fresh concrete during curing ■ Highly economical ■ Permanent water resistance
Storage and Shelf life	Stored at temperatures around 25°C in unopened original containers protected from direct sunlight and frost, shelf life is at least nine (9) months.
Instructions for Use	
Temperature	Material, substrate and ambient temperature: 5°C to 35°C
Substrate	As minimum, surface should be saturated surface dry. But for maximum bond, surface should be dry, free from dust, soil, release agents and rust.
Application Method	• *For the fixation of SikaSwell-Profiles and SikaFuko Swell 1* SikaSwell S-2 (size of triangular section approx.10mm) is applied to smooth surface substrates. In case of uneven substrates the quantity of SikaSwell S-2 must be adjusted accordingly. SikaSwell-Profiles or SikaFuko Swell 1 must be pressed well into the fresh SikaSwell® S-2. Concreting should not take place before 2-3 hours.

Section thickness (170 – 200mm)	Minimum concrete cover 80mm*	Recommended Bead Size (Triangular)	Theoretical yield of 600ml unipacs
170-200mm	80mm	10mm	13.9m
200-300mm	100mm	15mm	6.1m
>300mm	100mm	20mm	3.5m

Note: Application where concrete thickness <170mm is possible but not recommended. Bead size must be reduced to maximum 6mm and should be centrally located within concrete section.

Place SikaSwell® S-2 in the centre of the concrete section. Minimum cover to sealant on both sides must be 100mm (reinforced concrete) or 150mm (non-reinforced concrete). For section thickness <300mm allow sealant to harden for 2-3 hours. If the section thickness is >300mm, allow to harden for at least 2 days. Concrete should be well vibrated, without any honeycombs or voids.

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Technical and Physical Data

Form	Polyurethane paste
Appearance	Oxide red
Density	1.33 kg/litre approx.
Curing Time (+23°C, 50% r.h)	Tack free: after 2-3 hours Curing time: after 1 day = 2 mm, after 10 days = 10 mm
Swelling Capacity	1 day in water: <25% 7 days in water: >100% Reduced and delayed swelling properties in salty water.
Packaging	600 ml unipacs (20 per box)

Important Notes

- SikaSwell S-2 expands in contact with water. This does not happen immediately, but slowly after several hours. Nevertheless, it is advisable not to leave SikaSwell® S-2 any length of time in standing water (max. 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 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 up to 5 bar, it is not recommended for sealing against water pressures higher than 2 bar because of the limited sealing distance. For pressures > 2 bar SikaSwell S-2 can be used to fix SikaFuko Swell 1 or as a supplementary sealing measure for Sika Waterbars.
- If SikaSwell S-2 needs to be placed off-centre, the minimum cover is not to be less than 25mm. In this condition maximum bead size is 6mm to prevent any potential spalling of the concrete.
- For additional information, please contact your local Sika Representative

Handling Precautions

- Avoid contact with eyes and skin.
- Wear protective gloves and eye protection during work.
- If skin contact occurs, wash skin thoroughly.
- If in eyes, hold eyes open, flood with warm water and seek medical attention immediately.
- A full Material Safety Data Sheet is available from Sika on request.

Important Notification

The information, and, in particular, the recommendations relating to the application and end-use of Sika's 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 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 proprietary rights of third parties must be observed. All orders are accepted subject of our terms and conditions of sale. Users should always refer to the most recent issue of the Australian version of the Product Data Sheet for the product concerned, copies of which will be supplied on request.

PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.

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