



SikaSwell® S-2

One Part Polyurethane Hydrophillic Sealant

Technical Data Sheet

DESCRIPTION

SikaSwell S-2 is a one part gun applied polyurethane hydrophillic sealant which swells in contact with water.

USES

SikaSwell S-2 is suitable for sealing watertight concrete construction joints, penetrations and fixing **Sika® Injectoflex®** hoses and **SikaSwell Profiles**.

- * Sealing of daywork joints.
- * Sealing of cracks.
- * Sealing of PVC waterstops.
- * Sealing between different construction materials.
- * Sealing of pipe entries.
- * Sealing of precast concrete pipes and culverts.

ADVANTAGES

- * Swells in contact with water.
- * Easy and simple application.
- * Good adhesion to dry and damp substrates.
- * Permanently water resistant.
- * Provides a seal for any joint configuration.
- * No mechanical fixings required.
- * Adaptable for irregular and rough surfaces.

Technical Data (typical)

Colour:	Oxide red
Density:	1.15 kg/litre
Cure rate:	2 mm/day (+25°C / 50% RH)
Application temperature:	+10°C min, +30°C max (Substrate and ambient)
Shore A hardness:	
Swollen	>10
Unswollen	>25 - 40
Tack free time:	1 to 2 hours (+23°C / 50% RH)
Swelling capacity:	
7 days under water	> 30%
4 weeks under water	> 75%

Reduced or delayed swelling properties occur in salty or contaminated water.

All above values are approximate.

SURFACE PREPARATION

All surfaces must be sound, clean, surface dry (matt moist) and free from any surface contaminants.

All loose particles, paint, laitance, rust spoil and other poorly adhering materials should be removed by suitable hand, mechanical or hydro preparation techniques.

APPLICATION

For the fixing of waterstops and injection hoses:

A thin bead of **SikaSwell S-2** approx 10 mm diameter is applied to smooth substrates. In case of uneven substrates the diameter must be adjusted accordingly. **SikaSwell P** or **Sika Injectoflex** must be pressed well into the fresh **SikaSwell S-2**. Concreting should not take place for four hours.

As sealant:

Cut a V shape into the nozzle to obtain a regular extruded triangular fillet or alternatively use a triangulated nozzle as supplied in packaging boxes and apply **SikaSwell S-2** according to the following table:

Structure thickness	No of fillets	Length of triangular side
< 30 cm	1	15 mm
30 - 50 cm	1	20 mm
> 50 cm	2	20 mm

SikaSwell S-2 should be placed in the centre of the concrete section. In the case of two applied fillets these should be placed 5 cm apart.

Concreting should not take place for four hours. If the height of pour is greater than 3.0 m, check the **SikaSwell S-2** provides suitable fixation and resists movement. (Full cure may take up to 2 days). If necessary supplement with clips if **SikaSwell S-2** has not cured sufficiently to withstand placing of concrete.

IMPORTANT CONSIDERATIONS

- * Protect applied **SikaSwell S-2** from rain to avoid expansion.
- * Optimum application temperature is approx +20°C.
- * Do not use for movement joints.
- * If water level suddenly rises the waterproofing of joints cannot be immediately ensured because **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.
- * At water pressure over 0.3 bar **SikaSwell S-2** should only be used as a fixing material for injection hoses or as an additional measure to the **SikaDur®-Combiflex® System**.
- * The minimum thickness of concrete around **SikaSwell S-2** should be at least 5 cm each side and the cover at least 10 cm.
- * To improve the extrusion of **SikaSwell S-2** from the sealant gun, pre-condition product in warm conditions or submerge, unopened sealed sausages in warm water.

CLEANING

Clean tools immediately with **Sika® Thinner C**.

PACKAGING

600cc sausages supplied in boxes.

CONSUMPTION

Theoretical consumption of **SikaSwell S-2** per 600cc sausage (without wastage):

Length of triangular side:	15 mm	20 mm
Theoretical profile length:	6.1 m	3.5 m

STORAGE AND SHELF LIFE

9 months from date of production if stored in cool, dry conditions (@ +5°C to +35°C).

Handling Precautions

Sika products are generally harmless provided that certain precautions normally taken when handling chemicals are observed. The materials must not, for instance, be allowed to come in contact with foodstuffs or food utensils and measures should also be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The use of protective clothing, goggles, barrier creams and rubber gloves is required. The skin should be thoroughly cleaned at the end of each working period either by washing with soap and warm water or by using a resin-removing cream - the use of powerful solvents is to be avoided. Disposable paper towels - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. In case of accidental eye or mouth contact, flush with water - consult a doctor immediately. Health and Safety information on Sika Products is available and we strongly advise that this is read prior to their use. Sika products are for professional use and should be stored in sealed containers away from the reach of children.

Important Note

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 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 to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.

Please consult our Technical Sales Department for further information

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