



PRODUCT DATA SHEET

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WATERSTOPS

Sika® SwellStop

BENTONITE-BASED AND WATER-SWELLABLE JOINT SEALING PROFILES

Description	Sika® SwellStop is a highly versatile, strip-applied waterstop for non-moving joints in concrete. Formulated to encapsulate hydrophilic materials into a rubber base, SwellStop creates a controlled, moisture-activated, compression seal.
Where to Use	<ul style="list-style-type: none"> ▪ Designed for construction joints in new, watertight concrete structures. ▪ Excellent for sealing pipe penetrations through walls and floor slabs. ▪ Excellent for sealing joints between precast elements. ▪ Ideal for watertight construction joints between new and existing concrete.
Advantages	<ul style="list-style-type: none"> ▪ Easy to apply. ▪ Can be installed onto different substrates. ▪ Highly economical and quick to install. ▪ No hardening time required. ▪ No welding required. ▪ Adaptable to fit different detailing. ▪ Two dimensions available. ▪ Swells in contact with water. ▪ Can swell into cracks and gaps. ▪ Long-term reliability tested..

Technical Data																
Packaging	6 rolls per carton. <i>(Consult the following table for dimensions.)</i>															
	<table border="1"> <thead> <tr> <th>Type</th> <th>Width</th> <th>Thickness</th> <th>Length of roll</th> <th>Total Length per carton</th> </tr> </thead> <tbody> <tr> <td>Sika® SwellStop</td> <td>25 mm (1 in)</td> <td>19 mm (3/4 in)</td> <td>5 m</td> <td>30 m (100 ft)</td> </tr> <tr> <td>Sika® SwellStop II</td> <td>19 mm (3/4 in)</td> <td>9 mm (3/8 in)</td> <td>7.62 m</td> <td>45.72 m (150 ft)</td> </tr> </tbody> </table>	Type	Width	Thickness	Length of roll	Total Length per carton	Sika® SwellStop	25 mm (1 in)	19 mm (3/4 in)	5 m	30 m (100 ft)	Sika® SwellStop II	19 mm (3/4 in)	9 mm (3/8 in)	7.62 m	45.72 m (150 ft)
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Colour	Black															
Shelf Life	2 years. Store in unopened, undamaged and sealed original packaging, Store in dry conditions at temperatures not exceeding 30 °C (86 °F). Protect from UV light.															
Application Temperature	-23 to 50 °C (-10 to 125 °F)															
Service Temperature	-34 to 82 °C (-30 to 180 °F)															
Required Concrete Cover	Sika® SwellStop 75 mm (3 in) Sika® SwellStop II 50 mm (2 in)															
Properties at 23 °C (73 °F) and 50 % R.H.																
Change of Volume	100% at 48 hours; 250 % at 28 days (less in salty water)															
Swelling Pressure	160 m (525 ft) after 3 days stored in tap water															
Penetration ASTM D217	40 ± 5 %															
one at 25 °C, 15 gm; 5 sec																
<i>Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.</i>																

HOW TO USE

Surface Preparation

The surface to which the Sika® SwellStop profile is to be installed must be sound, clean, dry, free from all surface contaminants. All loose particles, dirt, dust, release agents, laitance, oils or greases, paint, rust and other poorly adhering materials must be removed by suitable manual or mechanical preparation. Surfaces which are excessively rough tend to leak eventually. It is recommended to smooth rough areas with fresh mortar (consult Sika Canada for advice).

Application

Sika® SwellStop profiles are installed in and along the joint after the first concrete pour and just before the second pour. A keyway may be formed with a slight draft angle at the joint face to accept the profile, this will reduce the risk of the profile shifting during subsequent concrete placement but may increase the chance of Sika® SwellStop being exposed to pooling water.

The concrete surface should be smooth and dry, and cured for a minimum 24 hours prior to the application of Sika® SwellStop profiles.

Along the length of the joint and to the prepared concrete surface and along, brush apply a 50 mm (2 in) wide coat of Sika® SwellStop Primer Adhesive. Allow it to dry for two hours, achieving a “dry to the touch” condition, before proceeding with the installation of Sika® SwellStop profiles.

Press Sika® SwellStop firmly and continuously into place, on and along the primed line.

In vertical or overhead applications Sika® SwellStop can be mechanically fastened to concrete using concrete nails, this being done in addition to using the primer adhesive.

Sika® SwellStop should be spliced by butting the ends together with no separation and no air pockets. **Note:** Do not overlap the ends of the waterstop.

Clean Up

Uncured adhesive material can be removed from equipment and tools using Sika® Epoxy Cleaner. Cured adhesive material can only be removed manually or mechanically. For removal of uncured adhesive material from hands and sensitive surfaces, use Sika® Hand Cleaner towels.

Limitations

- Sika® SwellStop profiles are not suitable for use in movement joints.
- Cracking and/or spalling of the concrete can be caused by the expansive pressure of Sika® SwellStop. A minimum 50 - 75 mm of concrete coverage is recommended. Increase this coverage if working with lightweight or low strength concrete (< 25 MPa (3500 psi) compressive strength).
- Sika® SwellStop requires the presence of moisture to initiate and maintain expansion. The expansion process begins immediately Sika® SwellStop is in contact with water.
- Sika® SwellStop Primer Adhesive and Sika® SwellStop profiles should be applied on the same day.
- Inspect Sika® SwellStop for premature swelling, discontinuity and debris contamination immediately prior to the 2nd concrete pour. If swelling and/or damage has occurred, remove and replace the material with new.
- If the water level suddenly increases, the water tightness of joints will only be achieved when Sika® SwellStop profiles have swollen.
- In a totally dry state, Sika® SwellStop profiles shrink to their original dimensions, but expand again in contact with water
- Do not remove the separation paper from Sika® SwellStop until immediately prior to the 2nd concrete pour.
- Do not use Sika® SwellStop profiles for sealing against water pressures higher than 20 m (65.6 ft), because of the limited sealing distance. Contact Sika Canada Technical Services for guidance.
- If Sika® SwellStop profiles are to be fixed around small diameter pipes, use additional mechanical fastening with tie wire or a sleeve.

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 SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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, within their shelflife. 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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