

## Sika® Waterbars




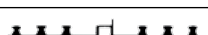
### Flexible PVC Waterstops

<b>Product Description</b>	<p>Sika® Waterbars are constructed from flexible thermoplastic PVC. They are designed to stop the migration of water through construction and expansion joints in concrete structures.</p> <p>Sika® Waterbars are available in various sizes and profiles to suit all types of application.</p>
<b>Uses</b>	<p>For the effective sealing of concrete construction and expansion joints in structures such as:</p> <ul style="list-style-type: none"><li>■ Basements</li><li>■ Water reservoirs</li><li>■ Sewage treatment plants</li><li>■ Swimming pools</li><li>■ Retaining walls</li><li>■ Lift shafts</li><li>■ Tunnels, culverts</li><li>■ Service pits</li></ul>
<b>Advantages</b>	<ul style="list-style-type: none"><li>■ Sealing starts as soon as the concrete has hardened</li><li>■ Multi rib profile provides impenetrable barriers to water migration</li><li>■ Can be easily site welded - (welding knife is available)</li><li>■ Good chemical resistance</li><li>■ Available various kind of profiles for all type of application</li></ul>
<b>Test</b>	
<b>Approval / Standards</b>	Sika® Waterbars have been tested in accordance with: BS 2571 specification.
<b>Form</b>	
<b>Appearance</b>	Flexible Strip
<b>Colour</b>	Yellow
<b>Storage</b>	
<b>Storage Conditions</b>	Keep in unopened, undamaged original packaging, protected from direct sunshine in dry area.



## Technical Data

<b>Base</b>	Polyvinyl Chloride		
<b>Density</b>	~ 1.40 kg/l		BS 2782:620
<b>Shore A Hardness</b>	75 ± 5		ISO 868-2003(E) BS 2782:365B
<b>Tensile Strength</b>	≥ 12 N/mm <sup>2</sup>		BS 2782:320A ASTM D 412-98
<b>Elongation at Break</b>	> 300%		BS 2782:320A ASTM D 412-98
<b>Water Absorption</b>	0.04%	(at 23°C)	BS EN ISO 62:1999
<b>Thermal Stability</b>	Minimum 70	(Congo Red Test at 180°C)	BS 2782:130A
<b>Welding Temperature</b>	Approx. 180°C		
<b>Service Temperature</b>	-35°C to +55°C		
<b>Chemical Resistance</b>	Permanent: Seawater, sewage Temporary: Diluted inorganic alkalis, mineral acids, mineral oils and fuels		

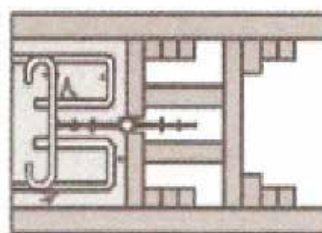
Profiles					
	User	Type	Width mm (± 5 mm)	Roll Length m	Nominal Thickness mm (± 10%)
<b>Centrally Placed Waterbars:</b> Installation in the center of concrete structures.					
Construction Joints		V-15M	150	20	3.0-5.0
		V-20M	200	20	3.0-5.0
		V-25M	250	20	3.0-5.0
		V-32M	320	15	3.0-8.0
		AR-25	250	20	3.5
Expansion Joints		O-15M	150	20	3.0-4.5
		O-20M	200	20	3.0-4.5
		O-25M	250	20	3.0-4.5
		O-32M	320	15	3.0-8.0
		DR-25	250	20	3.5

## Application

### Typical Detailing of Sika® Waterbars

#### Split Formwork with Sika® Waterbars “O” Profile

Figure 1

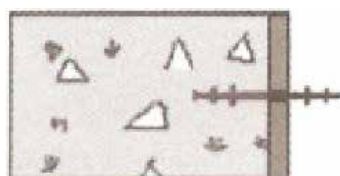


#### Fixing to formwork

The “O” profile Sika® Waterbars may also be used to in conjunction with split formwork. However care should be taken to ensure that “O” ring is not squashed flat between two forms. This method of installation increases the capacity of the Sika® Waterbars to accommodate expansion.

#### Formwork with Sika® Waterbars “V” Profile

Figure 2



#### Fixing to formwork

The “V” profile Sika® Waterbars is fitted into the split formwork or shuttering for casting centrally into the stopends. It is used for construction joints and movement joints where nominal movement is anticipated, such as basement or retaining walls.

<b>Fixing to Reinforcement</b>	Pre-punched eyelets are located in the outer flanges of the profiles. These simplify the fixing of waterbars to the steel reinforcement with tie wires to ensure the waterbars are not displaced during concreting.
<b>Placing Concrete First Stage</b>	<p>The Sika® Waterbars performs its function only if both sides are well embedded in the concrete. Avoid formation of honey combs by vibrating carefully.</p> <p>The consistency of the concrete itself should be neither too plastic nor too stiff, and the aggregate must be well graded.</p> <p>Placing of fresh concrete near the Sika® Waterbars requires care, as otherwise it will be forced from its position by the pressure of the fresh concrete, i.e. the ends will fold up. To prevent this, the same concrete pressure must be present on both sides of the Waterbar.</p>
<b>Placing Concrete Second Stage</b>	<p>Removal of formwork in the neighborhood of Sika® Waterbars must be done with care.</p> <p>The end of the Sika® Waterbars should be thoroughly checked for honeycombing on the stop-end and repaired if necessary. It must also be cleaned of all hardened concrete remnants adhering from the first concrete stage. Further procedure is similar to the first stage.</p>
<b>Welding</b>	<p>On site welding can be undertaken using a Sika® Electric Welding Knife. Both ends of the joint are heated simultaneously on the faces of the welding knife until an even, molten bead of PVC appears. The welding knife is withdrawn and the Sika® Waterbars are immediately pushed together. The joint should be held rigid until the plastic colls down and solidifies.</p> <p>Check for any gaps or imperfect joints. Redo the welding if necessary.</p> <p>Failures can be caused by irregularities of cut edges, insufficient heat, dust etc.</p>
<b>Limits on Application / Notes</b>	Level differences, bends, junctions, etc. should be carefully considered before placing.
<b>Health and Safety Information</b>	
<b>Ecology</b>	Can be disposed according to local law
<b>Transportation</b>	Non-harzadous
<b>Important Note</b>	<p>Care should be taken to avoid breathing fumes and smoke during the PVC welding process. Hence, welding should be performed in open, well ventilated area.</p> <p>In case of doubt always follow the directions given on the pack or label.</p>

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.

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Sika® Waterbars 3/3

