BUILDING TRUST

PRODUCT DATA SHEET

Sika Waterbar® DR ZA

EXTERNAL WATERBARS FOR EXPANSION JOINTS SEALING IN WATERTIGHT CONCRETE CONSTRUCTION

DESCRIPTION

Sika Waterbars Type DR made from PVC-P are used for sealing expansion joints in watertight concrete structures. Sika Waterbars PVC-P Type DR are available in a range of different sizes to suit different structures and applications.

USES

Application fields:
- Joint sealing in concrete structures
- Construction joint sealing in insitu concrete

Typical structures include:
- Residential building basements
- Commercial building basements
- Underground car parks

CHARACTERISTICS / ADVANTAGES

- High tensile strength and elongation
- Permanent flexibility
- Suitable for medium levels of hydrostatic pressure and stress
- Resistant to all natural mediums in soil and groundwater that are aggressive to concrete
- Weldable

PRODUCT INFORMATION

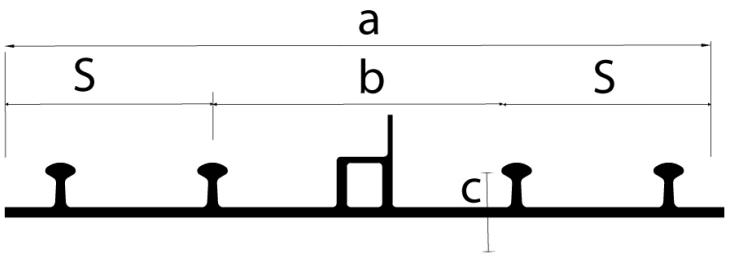
Chemical Base	PVC-P Polyvinyl Chloride Plasticized
Packaging	Standard rolls 15 or 30 m dependent on profile
Appearance / Colour	Yellow
Shelf Life	The product does not expire if stored correctly
Storage Conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5°C and +35°C. Protect from direct sunlight, heat and moisture.

TECHNICAL INFORMATION

Shore A Hardness	80 ± 5 ASTM D 2240
Tensile Strength	≥ 15 N/mm2 ASTM D 638
Elongation	> 300 % ASTM D 638
Tear Strength	≥ 61 N/mm2 ASTM D 624-98
Service Temperature	- 35°C to + 55°C

SYSTEM INFORMATION

System Structure



Total width (mm) a	Width of movement part (mm) b	Thickness (mm) c	Width of sealing part (mm) s
DR 26 (260mm)	110 mm	3.5 mm	75 mm
DR 32 (320mm)	100 mm	4 mm	110 mm

BASIS OF PRODUCT DATA

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.

ECOLOGY HEALTH AND SAFETY

APPLICATION INSTRUCTIONS

APPLICATION METHOD / TOOLS

General
Only butt joints should be formed on site with Sika Waterbars PVC-P Type DR.

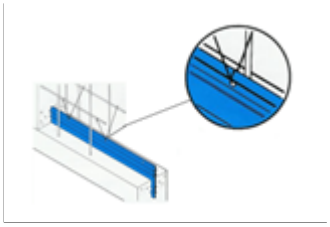
Prefabricated formpieces:
Standard formpieces (flat or vertical) for Sika Waterbars PVC-P Type DR include: Cross pieces, T-pieces, Lpieces.
Prefabricated formpieces help to reduce the required butt joints on site to a minimum.

Special formpieces:
Combined formpiece systems using combinations of different standard connections and profiles. The standard maximum total length of formpiece system is 20m maximum. Longer formpiece systems on request.

Handling:
- Careful transport and handling on site
- Installation at ambient and waterbar material temperatures ≥ 0°C
- Protection until the waterbar system is fully cast in the concrete
- Special care must be taken with the waterbar system ends
- Waterbars must be cleaned before casting in

Application:
- Internal waterbars are to be installed within the concrete section and clearance from the edge of the concrete must be at least half of the total width a of the waterbar
- Detailed information on installation is given in the relevant method statement and instruction for use. If there are very high stresses or difficult concreting conditions, the waterbars can be combined with integrated injection hoses installed locally on the lateral anchoring ribs to additionally inject / grout around the cast-in parts at a later date.

Jointing on site:
The Sika Waterbars PVC-P Type DR are butt jointed by welding. Jointing with adhesives is not permitted. Requirement: Minimum ambient temperature + 5°C and dry weather conditions. Site joints must be formed only by trained and qualified personnel.
- Sika Waterbar® DR ZA O profiles must be installed so they are securely held in the correct position whilst the concrete is poured.
- The concrete must be fully and properly compacted around the waterstops.
- Where reinforcement is present, an adequate clearance must be left between this and all waterstops to permit proper compaction of the concrete.
- The eyelets in the reinforced flanges of the O profile allow them to be wired to the surrounding reinforcing steel. The eyelets are an integral part of the profiles and being placed outside the outer valves cannot create a water path around the profile or impair the efficiency in performance in any way. See typical detail below.



Heat Welding of Waterstops

- Make sure that the heater blade is clean, plug it into the correct voltage electricity supply and leave in a safe position to warm up.
- Ensure that the ends of the waterstop to be jointed are of the same width and profile; clean them with water and dry them.
- Clamp them in the correct profile slots of the jig provided and cut both ends off square with a sharp knife, flush with the faces of the jig.
- Note: An allowance must be made for waste and for the 5 to 10 mm that will be taken up by melting when calculating the length of waterstop required.
- Loosen the jig and slide them back so that approximately 10 mm of each waterstop end projects and then clamp the jig tightly in position.
- Position the heater blade on the bars between the jigs and slide them together until the waterstop ends are pressed firmly against the sides of the blade. The PVC should melt without burning or charring. Hold the jig firmly in position until a bead of molten PVC approximately 3 mm in diameter appears along either side of the heater blade.
- Slide the jig apart a little and remove the heater blade with an upward movement. This will ensure that it takes as little PVC as possible with it. Quickly joint the molten ends by sliding the jig together and exerting pressure. Approximately 20 seconds to allow the molten PVC to fuse completely. Switch off the heater blade. While it is still hot, clean thoroughly with emery paper or a wire brush ready for the next joint. Unclamp the jig and carefully remove the waterstop. Do not flex the joint until it has cooled. The joint is now complete. When cold, test it by flexing the waterstop several times.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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.

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