

## PRODUCT DATA SHEET

# Sika Waterbar® O VN

Flexible PVC waterstop

## DESCRIPTION

Sika Waterbar® O VN are constructed from flexible thermoplastic PVC. They are designed to stop the migration of water through construction and expansion joints in concrete structures.

Sika Waterbar® O VN are available in various sizes and profiles to suit all types of application.

## USES

For the effective sealing of concrete construction and expansion joints in structures such as:

- Basements
- Water reservoirs
- Sewage treatment plants
- Swimming pools
- Retaining walls
- Lift shafts
- Tunnels, culverts
- Service pits

## PRODUCT INFORMATION

### Packaging

Roll length:

Sika Waterbar® O VN 15 = 20m

Sika Waterbar® O VN 20 = 20m

Sika Waterbar® O VN 25 = 20m

Sika Waterbar® O VN 32 = 15m

### Shelf Life

5 years from date of production if stored properly.

### Storage Conditions

Dry, shaded place (protected from sunlight)

### Appearance / Colour

Flexible strip / Yellow

## CHARACTERISTICS / ADVANTAGES

- Sealing starts as soon as the concrete has hardened
- Multi rib profile provides impenetrable barriers to water migration
- Can be easily site welded
- Good chemical resistance
- Available various kind of profiles for all type of application

## APPROVALS / STANDARDS

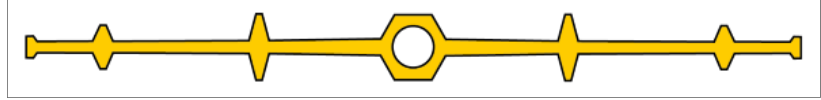
Test Report 21LM031601

General Spec. for Civil Engineering Works 2006: Table 16.14 GMWS 20.5.13 Table 20.7

## SYSTEM INFORMATION

System Structure	Type	Width (mm) (± 5mm)	Roll Length (m)	Nominal Thickness (mm) (±10%)
	O-15	150	20	3.0 - 4.5
	O-20	200	20	3.0 - 4.5
	O-25	250	20	3.0 - 4.5
	O-32	320	15	3.0 - 8.0

Sika Waterbar® O VN profile



## TECHNICAL INFORMATION

Shore A Hardness	82	ASTM D2240
Tensile Strength	13.80 N/mm <sup>2</sup>	BS 2782: Pt 3: Method 320A to 320F
Elongation	306%	BS 2782: Pt 3: Method 320A to 320F
Service Temperature	-35°C to +55°C	
Chemical Resistance	Permanent: Seawater, sewage. Temporary: Diluted inorganic alkalis, mineral acids, mineral oils and fuels	

## 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.

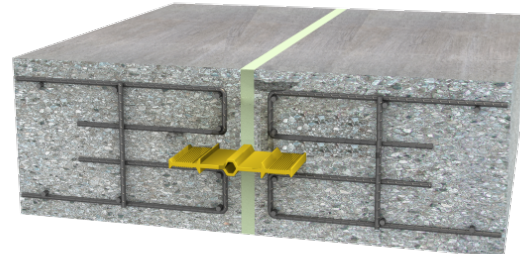
## LIMITATIONS

Level differences, bends, junctions, etc. should be carefully considered before placing. 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. In case of doubt always follow the directions given on the pack or label

## ECOLOGY, HEALTH AND SAFETY

**Ecology:** Can be disposed according to local law  
**Transportation:** Non-hazardous  
**Toxicity:** Non-toxic

## APPLICATION INSTRUCTIONS



### Fixing to formwork

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

### Fixing Reinforcement

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.

### Placing concrete first stage

Sika Waterbar® O VN performs its function only if both sides are well embedded in the concrete. Avoid formation of honey combs by vibrating carefully. The consistency of the concrete itself should be

neither too plastic nor too stiff, and the aggregate must be well graded.

Placing of fresh concrete near the Sika Waterbar® O VN 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 Sika Waterbar® O VN.

#### **Placing concrete second stage**

Removal of formwork in the neighborhood of Sika Waterbar® O VN must be done with care.

The end of the Sika Waterbar® O VN should be thoroughly checked for honey-combing 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.

#### **Welding**

On site welding can be undertaken using a 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 Waterbar® O VN are immediately pushed together. The joint should be held rigid until the plastic cools down and solidifies.

Check for any gaps or imperfect joints.

Failures can be caused by irregularities of cut edges, insufficient heat, dust etc.

## **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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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#### **Product Data Sheet**

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