

## PRODUCT DATA SHEET

# Sikaplan® WP 1100-15 HL

1.5 mm-thick PVC sheet waterproofing membrane for basements and tunnels

### DESCRIPTION

Sikaplan® WP 1100-15 HL is a flexible, 1.5 mm-thick, homogeneous sheet waterproofing membrane. It contains a signal layer and is based on high-quality polyvinylchloride (PVC-p).

### USES

Sikaplan® WP 1100-15 HL is used for:

- Waterproofing of basements against water ingress
- Waterproofing of tunnels against water ingress

### FEATURES

- Flexible in cold temperatures
- Elastic material behaviour
- Suitable for contact with acidic (soft) water and alkaline environments
- Optimised workability and thermally weldable
- Part of the complete waterproofing membrane system
- Proven performance over decades
- Contains no recycled materials and no DEHP (DOP) plasticisers

### PRODUCT INFORMATION

|  |                                 |                   |
|--|---------------------------------|-------------------|
| <b>Composition</b>   | PVC-p                           |                   |
| <b>Packaging</b>   | Roll width                      | 2.0 m             |
|  | Roll length                     | 20 m or specified |
| Rolls are wrapped in PE film.<br>Refer to the current price list for available packaging variations. |                                 |                   |
| <b>Shelf life</b>  | 5 years from date of production |                   |

**Storage conditions**

The Product must be stored in original unopened and undamaged sealed packaging in dry conditions and temperatures between +5 °C and +35 °C. Protect the Product from direct weather exposure. Store in a horizontal position. Do not stack pallets of the rolls on top of each other, or under pallets of any other materials during transport or storage. Always refer to the packaging.

|                              |   |             |
|------------------------------|---|-------------|
| <b>Appearance and colour</b> | Surface texture   | smooth      |
|                              | Signal layer colour   | yellow      |
|                              | Bottom layer colour   | black       |
| <b>Effective thickness</b>   | 1.50 mm (-0.07 mm / +0.15 mm)   | (EN 1849-2) |
| <b>Mass per area</b>         | 1.95 kg/m <sup>2</sup> (-0.09 kg/m <sup>2</sup> / +0.19 kg/m <sup>2</sup> ) | (EN 1849-2) |

**SYSTEM INFORMATION****System structure**

Ancillary products:

- Sika® FlexoDrain
- Sikaplan® Geotextiles
- Sika® Drains
- Sika® W Tundrains
- Sikaplan® WP Drainage Angles
- Sikaplan® WP Disc
- Sika® WP Waterbars
- Sikaplan® WP Tape System
- Sikaplan® WP Control Socket
- Sikaplan®-8 Separation
- Sikaplan® WP Trumpet Flange
- Sika® Anchors
- Sikaplan® WP Protection Sheets

**TECHNICAL INFORMATION**

|                                       |                                  |   |                |
|---------------------------------------|----------------------------------|---|----------------|
| <b>Resistance to impact</b>           | Method A, 500 g falling weight   | Watertight at 750 mm drop height              | (EN 12691)     |
|                                       | Method B                         | ≥ 750 mm                                      |                |
| <b>Resistance to static loading</b>   | No perforation at 20 kg for 24 h |   | (EN 12730)     |
| <b>Resistance to static puncture</b>  | 1.8 kN ± 0.2 kN                  |   | (EN ISO 12236) |
| <b>Resistance to root penetration</b> | Pass                             |   | (CEN/TS 14416) |
| <b>Tensile strength</b>               | Longitudinal (MD)                | 17 N/mm <sup>2</sup> ± 2 N/mm <sup>2</sup>    | (EN ISO 527-3) |
|                                       | Transversal (CMD)                | 16 N/mm <sup>2</sup> ± 2 N/mm <sup>2</sup>    |                |
|                                       | Longitudinal (MD)                | 17 N/mm <sup>2</sup> ± 2 N/mm <sup>2</sup>    | (EN 12311-2)   |
|                                       | Transversal (CMD)                | 16 N/mm <sup>2</sup> ± 2 N/mm <sup>2</sup>    |                |
| <b>Tensile strain at break</b>        | Longitudinal (MD)                | > 300 %                                       | (EN ISO 527-3) |
|                                       | Transversal (CMD)                | > 300 %                                       |                |
| <b>Burst strength</b>                 | Maximum burst stress             | 6.0 N/mm <sup>2</sup> ± 0.6 N/mm <sup>2</sup> | (DIN 61551)    |
|                                       | Elongation at break              | > 70 %  |                |
| <b>Resistance to tear</b>             | Longitudinal (MD)                | ≥ 400 N                                       | (EN 12310-1)   |
|                                       | Transversal (CMD)                | ≥ 400 N                                       |                |
| <b>Joint shear resistance</b>         | > 750 N/50mm                     |   | (EN 12317-2)   |
| <b>Service temperature</b>            | Maximum                          | +35 °C  |                |
|                                       | Minimum                          | -10 °C  |                |

|   |  |                               |              |
|---|--|-------------------------------|--------------|
| <b>Foldability at low temperature</b>                 | No cracks at -20 °C  |                               | (EN 495-5)   |
| <b>Watertightness</b>                                 | Method B, 24 hours at 60 kPa   | Pass                          | (EN 1928)    |
| <b>Water permeability</b>                             | < 10 <sup>-6</sup> m <sup>3</sup> ·m <sup>-2</sup> ·d <sup>-1</sup>  |                               | (EN 14150)   |
| <b>Resistance to oxidation</b>                        | Change in tensile strength, aged 90 days at +85 °C                   | < 15 %                        | (EN 14575)   |
|   | Change in elongation, aged 90 days at +85 °C                         | < 15 %                        |              |
| <b>Durability of watertightness against chemicals</b> | Calcium hydroxide, aged 28 days at +23 °C, tested 24 hours at 60 kPa | Pass                          | (EN 1847)    |
| <b>Resistance to UV exposure</b>                      | Not permanently UV stable  |                               |              |
| <b>Resistance to weathering</b>                       | Not resistant to permanent weathering                                |                               |              |
| <b>Behaviour after heat welding</b>                   | Behaviour of weld in shear test                                      | Break occurs outside the seam | (EN 12317-2) |
|   | Peel resistance of welded seam                                       | No failure of the joint       | (EN 12316-2) |
| <b>Dimensional change after heat</b>                  | Longitudinal (MD), aged 6 hours at +80 °C                            | < 2 %                         | (EN 1107-2)  |
|   | Transversal (CMD), aged 6 hours at +80 °C                            | < 2 %                         |              |
| <b>Durability of watertightness against ageing</b>    | Aged 12 weeks at +70 °C, tested 24 hours at 60 kPa                   | Pass                          | (EN 1296)    |
| <b>Reaction to fire</b>                               | Class E  |                               | (EN 13501-1) |

## 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

This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in this product data sheet. Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0.1 % (w/w)

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

For information on substrate quality and pre-treatment, refer to the following Sika® method statements:

- Sikaplan® WP sheet membrane (PVC) system for waterproofing basements
- Sikaplan® WP sheet membrane (PVC) system for waterproofing tunnels

### APPLICATION

#### IMPORTANT

#### Strictly follow installation procedures

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

For information on application, refer to the following Sika® method statements:

- Sikaplan® WP sheet membrane (PVC) system for waterproofing basements
- Sikaplan® WP sheet membrane (PVC) system for waterproofing tunnels

## IMPORTANT

### Application by trained personnel

The application of this Product must only be carried out by an applicator that is trained or approved by Sika. The applicator must also be experienced in this type of application.

## IMPORTANT

### Ventilation in confined spaces

Always ensure good ventilation when applying the Product in a confined space.

## IMPORTANT

### Avoid permanent contact with bitumen and plastics

The Product is not resistant to permanent contact with bitumen and some types of plastics other than PVC.

1. For use over or adjacent to these materials, apply a separation layer of polypropylene geotextile ( $\geq 150 \text{ g/m}^2$ ).

## 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.

### Sika Egypt

1st Industrial Zone (A)  
Section #10, Block 13035  
El Obour City, Egypt  
TEL: +202 44810580  
FAX: +202 44810459  
egy.sika.com



### Product Data Sheet

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