BUILDING TRUST

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

CERTIFICATES AND TEST REPORTS

- CE marking and declaration of performance based on EN 13491:2004/A1:2006 Geosynthetic barriers — Characteristics required for use as a fluid barrier in the construction of tunnels and underground structures
- CE marking and declaration of performance based on EN 13967:2012 Flexible sheets for waterproofing — Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet — Definitions and characteristics

PRODUCT INFORMATION

Composition	PVC-p	
Packaging	Roll width	2.0 m
	Roll length	20 m or specified
	Rolls are wrapped in PE film. Refer to the current price list for available packaging variations.	
Shelf life	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.		
Appearance and colour	Surface texture	smooth	
	Signal layer colour	yellow	
	Bottom layer colour	black	
Effective thickness	1.50 mm (-0.07 mm / +0.15 mm)		(EN 1849-2)
Mass per area	1.95 kg/m² (-0.09 kg/m² / +0.19 kg/m²)		(EN 1849-2)

TECHNICAL INFORMATION

Resistance to impact	Method A, 500 g falling weight	Watertight at 750 mm drop height	(EN 12691)
	Method B	≥ 750 mm	
Resistance to static loading	No perforation at 20 kg for 24 h		(EN 12730)
Resistance to static puncture	1.8 kN ± 0.2 kN		(EN ISO 12236)
Resistance to root penetration	Pass		(CEN/TS 14416)
Tensile strength	Longitudinal (MD)	17 N/mm² ± 2 N/mm²	(EN ISO 527-3)
	Transversal (CMD)	16 N/mm² ± 2 N/mm²	
	Longitudinal (MD)	17 N/mm² ± 2 N/mm²	(EN 12311-2)
	Transversal (CMD)	16 N/mm² ± 2 N/mm²	
Tensile strain at break	Longitudinal (MD)	> 300 %	(EN ISO 527-3)
	Transversal (CMD)	> 300 %	
Burst strength	Maximum burst stress	6.0 N/mm² ± 0.6 N/mm²	(DIN 61551)
	Elongation at break	> 70 %	
Resistance to tear	Longitudinal (MD)	≥ 400 N	(EN 12310-1)
	Transversal (CMD)	≥ 400 N	
Joint shear resistance	> 750 N/50mm		(EN 12317-2)
Service temperature	Maximum	+35 °C	
	Minimum	-10 °C	
Foldability at low temperature	No cracks at -20 °C		(EN 495-5)
Watertightness	Method B, 24 hours at 60 kPa	Pass	(EN 1928)
Water permeability	< 10^{-6} $m^3 \cdot m^{-2} \cdot d^{-1}$		(EN 14150)
Resistance to oxidation	Change in tensile strength, aged 90 days at +85 °C	< 15 %	(EN 14575)
	Change in elongation, aged 90 days at +85 °C	< 15 %	
Durability of watertightness against chemicals	Calcium hydroxide, aged 28 days at +23 °C, tested 24 hours at 60 kPA	Pass	(EN 1847)

Resistance to UV exposure	Not permanently UV stable		
Resistance to weathering	Not resistant to permanent weathering		
Behaviour after heat welding	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)
Dimensional change after heat	Longitudinal (MD), aged 6 hours at +80 °C	< 2 %	(EN 1107-2)
	Transversal (CMD), aged 6 hours at +80 °C	< 2 %	
Durability of watertightness against ageing	Aged 12 weeks at +70 °C, tested 24 hours at 60 kPa	Pass	(EN 1296)
Reaction to fire	Class E		(EN 13501-1)

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

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 (≥ 150 g/m²).

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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