BUILDING TRUST
CONSTRUIRE LA CONFIANCE

PRODUCT DATA SHEET

Sikaplan® WP 1100-30 HL

3.0 mm thick PVC sheet waterproofing membrane for basements and tunnels with a signal layer

PRODUCT DESCRIPTION

Sikaplan® WP 1100-30 HL is a flexible, 3.0 mm thick, homogeneous sheet waterproofing membrane. It contains a signal layer and is based on high-quality polyvinylchloride (PVC-p).

WHERE TO USE

Sikaplan® WP 1100-30 HL is used for:
- Waterproofing of basements against water ingress
- Waterproofing of tunnels against water ingress

Sikaplan® WP 1100-30 HL may only be used by experienced professionals.

CHARACTERISTICS / ADVANTAGES

Sikaplan® WP 1100-30 HL provides the following characteristics and benefits:
- High resistance to ageing
- Good resistance to microbial degradation
- Good resistance to root penetration
- Suitable for contact with acidic (soft) water and alkaline environments
- Optimised flexibility, tensile strength and multi-axial elongation
- 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

APPROVALS / CERTIFICATES

- 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 / Manufacturing	PVC-p	
Packaging	Roll width	2 m
	Roll length	20 m or specified
	Rolls are wrapped in PE film.	
Appearance / Colour	Surface texture	Smooth
	Signal layer colour	Yellow
	Bottom layer colour	Black
Shelf Life	5 years from date of production	

Storage Conditions	Sikaplan® WP 1100-30 HL must be stored in original unopened and undamaged sealed packaging in dry conditions and at temperatures between 5 °C and 35 °C. Protect from direct weather exposure. Store in a horizontal position. Do not stack pallets of rolls on top of each other, or under pallets of any other materials during transport or storage. Always refer to the packaging.	
Effective Thickness	3.00 mm (-0.15 mm / +0.30 mm)	(EN 1849-2)
Mass per Unit Area	3.90 kg/m² (-0.19 kg/m² / +0.39 kg/m²)	(EN 1849-2)

TECHNICAL INFORMATION

Resistance to Impact	Method B	≥ 1250 mm	(EN 12691)
Resistance to Static Load	No perforation at 20 kg for 24 h		(EN 12730)
Resistance to Static Puncture	3.4 kN ± 0.3 kN		(EN ISO 12236)
Resistance to Root Penetration	Pass		(CEN/TS 14416)
Long Term Compression Strength	Water tightness, aged 48 hours	Watertight at 7.0 MPa	(ÖBV Guideline "Tunnel Waterproofing")
Tensile Strength	Longitudinal (MD)	17 MPa ± 2 MPa	(EN ISO 527-3)
	Transversal (CMD)	16 MPa ± 2 MPa	
	Longitudinal (MD)	17 MPa ± 2 MPa	(EN 12311-2)
	Transversal (CMD)	16 MPa ± 2 MPa	
Elongation at Break	Longitudinal (MD)	> 300 %	(EN ISO 527-3)
	Transversal (CMD)	> 300 %	
Burst Strength	Maximum burst stress	6.0 MPa ± 0.6 MPa	(DIN 61551)
	Elongation at break	> 70 %	
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 %	
Resistance to Tear	Longitudinal (MD)	≥ 650 N	(EN 12310-1)
	Transversal (CMD)	≥ 650 N	
Joint Shear Resistance	> 1350 N/50 mm		(EN 12317-2)
Foldability	No cracks at -20 °C		(EN 495-5)
Reaction to Fire	Class E		(EN 13501-1)
Chemical Resistance	Change in tensile strength and elongation, saturated lime wash, aged 360 days at 50 °C	< 20 %	(EN 14415)
	Change in mass, saturated lime wash, aged 360 days at 50 °C	< 4 %	

	Change in tensile strength, 5-6 % sulphurous acid test, aged 90 days at 23 °C	< 20 %	(EN 1847)
	Foldability at low temperatures, 5-6 % sulphurous acid test, aged 90 days at 23 °C	No cracks at -20 °C	
	Change in impact load, saturated lime wash, aged 360 days at 50 °C	≤ 30 %	(EN 1847; EN 12691)
Behaviour after Storage in Warm Water	Change in elongation, aged 360 days at 70 °C	< 20 %	(EN 14415)
	Change in mass, aged 360 days at 70 °C	< 4 %	
	Change in tensile strength, aged 360 days at 70 °C	< 20 %	
	Dimensional change, aged 360 days at 70 °C	< 2 %	
	Reduction of impact load, aged 360 days at 70 °C	≤ 30 %	
	Water tightness, aged 48 hours	Watertight at 7.0 MPa	
Resistance to UV Exposure	Not permanently UV stable		
Resistance to Weathering	Not resistant to permanent weathering		
Resistance to Oxidation	Change in tensile strength, aged 120 days at 80 °C	< 10 %	(EN 14575)
	Change in elongation, aged 120 days at 80 °C	< 10 %	
	Foldability at low temperatures, aged 120 days at 80 °C	No cracks at -20 °C	
Microbiological Resistance	Change in tensile strength, aged 16 weeks	< 15 %	(EN 12225)
	Change in elongation, aged 16 weeks	< 15 %	
Watertightness	Method B, 24 hours at 60 kPa	Pass	(EN 1928)
Durability of Watertightness against Ageing	Aged 12 weeks at 70 °C, tested 24 hours at 60 kPa	Pass	(EN 1296)
Durability of Watertightness against Chemicals	Calcium hydroxide, aged 28 days at 23 °C, tested 24 hours at 60 kPA	Pass	(EN 1847)
Service Temperature	Maximum	35 °C	
	Minimum	-10 °C	
Water Permeability	< 10^{-6} $m^3 \cdot m^{-2} \cdot d^{-1}$		(EN 14150)

SYSTEMS

System Structure

The following are ancillary products of the system:
- Sika® FlexoDrain W
- Sikaplan® Geotextiles
- Sika® Drainage Mats
- Sika® W Tundrains
- Sikaplan® WP Disc
- Sika® WP Waterbars
- Sikaplan® WP Tape Systems
- Sikaplan® WP Control Socket
- Sikaplan® WP Trumpet Flange
- Sikaplan® WP Protection Sheets

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

ENVIRONMENT, HEALTH & SAFETY

This product is a manufactured article that does not require Safety Data Sheets to be marketed, transported or applied at the jobsite, according to the Hazardous Product Act - Section 2. Based on our current knowledge, this product is not classified as dangerous and does not contain any hazardous materials. Always wear personal protective equipment (including safety goggles and gloves) to manipulate and install Sika® products.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

For information on substrate quality and pre-treatment, refer to the following Sika® documents:
- Sikaplan® WP sheet membrane system for waterproofing basements and other below ground structures
- Sikaplan® WP sheet membrane system for waterproofing tunnels

APPLICATION

Important:
- Strictly follow installation procedures as defined in Method Statements, Application Manuals and work instructions. These must be adapted to suit actual site conditions at all times.
- The application of Sikaplan® WP 1100-30 HL 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.
- Always ensure good ventilation when applying Sikaplan® WP 1100-30 HL in a confined space.

Sikaplan® WP 1100-30 HL is not resistant to permanent contact with bitumen and some types of plastics other than PVC. For use over or adjacent to these materials, apply a separation layer of polypropylene geotextile (≥ 150 g/m²).

For information on application, refer to the following Sika® documents:
- Sikaplan® WP sheet membrane system for waterproofing basements and other below ground structures
- Sikaplan® WP sheet membrane system for waterproofing tunnels

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

Sika Canada Inc.
Head Office
601, avenue Delmar
Pointe-Claire, Quebec
H9R 4A9
1-800-933-SIKA
www.sika.ca

Other locations
Boisbriand (Quebec)
Brantford; Cambridge;
Sudbury; Toronto (Ontario)
Edmonton (Alberta)
Surrey (British Columbia)