

# Sikaplan® WP 1120-20 HL

## Product Description

Sikaplan® WP 1120-20HL is a homogenous sheet waterproofing membrane with a yellow signal layer, based on polyvinylchloride (PVC-P)

## Uses

Waterproofing of all kinds of below ground structures against groundwater.

## Characteristics / Advantages

- High resistance to aging
- High tensile strength and elongation
- Resistant to natural aggressive mediums in ground water and soil
- High resistance to mechanical impact
- High dimensional stability
- High flexibility in cold temperatures
- Heat weldable
- Suitable for installation on weak substrate
- Can be installed on damp and wet substrate

## Tests

### Watertightness test

Tested According to various EN standards

## Product Data

### Form

#### Appearance

Roll sheet membrane  
Surface: smooth  
Thickness: 2.00 mm

#### Colour

Top layer: yellow  
Bottom layer: black

#### Packing

Roll size: 2.00 m (roll width) x 15.00 m (roll length)  
Unit Weigth: 2.60 Kg/m<sup>2</sup>

## Storage

### Storage Conditions/

Stored in dry conditions, protected from direct sunlight, rain, snow and ice, etc.

### Shelf-Life

The product does not expire if correctly stored.

Construction



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## Technical Data

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<b>Visible Defects</b>	Pass	EN 1850-2
<b>Length</b>	15 (-0 / +5 %) m	EN 1848-2
<b>Width</b>	2 (-0.5 / +1 %) m	EN 1848-2
<b>Straightness</b>	≤ 75 mm/10 m	EN 1848-2
<b>Thickness</b>	2.0 (-5/+10%) mm	EN 1849-2
<b>Mass per unit area</b>	2.600 (-5/+10%) kg/m <sup>2</sup>	EN 1849-2
<b>Water tightness to liquid water</b>	Pass	EN 1928 B
<b>Durability of water tightness against ageing</b>	Pass	EN 1296(12 weeks) EN 1928 B (24h/60kPa)
<b>Durability of water tightness against chemical</b>	Pass	EN 1847 (28d,23°C) EN 1928 B (24h/60kPa)
<b>Accelerated ageing in an alkaline environment, tensile strength</b>	Pass	Appendix C (24 weeks/90°C) EN 12311-2
<b>Bitumen compatibility</b>	No performance determined	EN 1548 (28d/70°C) EN 1928 A
<b>Resistance to tear (nail shank)</b>	≥ 500 N	EN 12310-1
<b>Tensile strength</b>		EN 12311-2
<b>Longitudinal (MD)</b>	≥ 14.5 MPa	
<b>Transversal (CMD)</b>	≥ 14.5 Mpa	
<b>Elongation</b>		EN 12311-2
<b>Longitudinal (MD)</b>	≥ 300 %	

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<b>Transversal (CMD)</b>	≥ 300 %	
<b>Foldability at low temperature</b>	-25 °C	EN 495-5
<b>Dimension stability</b>	≤2 %	EN 1107-2
<b>Resistance to impact,</b>	≥ 750 mm	EN 12691
<b>Water Vapour Diffusion Resistance</b>	18'000 μ (+/- 5000)	EN 1931
<b>Joint Strength</b>	≥ 1100 N/50mm	EN 12317-2
<b>Resistance to static load</b>	≥ 20 kg	EN 12730 (Method B 24 h / 20 kg)
<b>Reaction to fire</b>	Class E	EN 13501-1

## System Information

<b>System structure</b>	Ancillary products: <ul style="list-style-type: none"> <li>- Sikaplan® WP laminated metal for pieces</li> <li>- Sikaplan WP Disk for pieces</li> <li>- Sika Waterbar, Type AR and DR for fixing pieces and waterproofing concrete joints</li> </ul>
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## Application Details

<b>Substrate Quality</b>	Substrate should be smooth and solid.
<b>Substrate Preparation</b>	In-situ concrete: Clean, sound and dry, homogeneous, free from oils and grease, dust and loose or friable particles.  Shotcrete: If the substrate is rough, a fine gunite layer on the substrate with a min. thickness of 50 mm and cleaned without loosen aggregates, stones, nails wires, etc..  If steel existed, such as girders, reinforcement mesh, anchor, etc., a min. 50 mm gunite layer is a must as a cover.

## Application Conditions / Limits

<b>Temperatures</b>	+5 °C min./ +35 °C max.
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## Installation Instructions

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### Application Method / Tools

Installation method:  
Loose laid and mechanically fastened, or loose laid and ballasted in accordance with the separate Sika Method Statement for sheet membrane installations.

All membrane overlaps must be welded i.e. using hand welding guns and pressure rollers or automatic heat welding machines, with individually adjustable and electronically controlled welding temperatures.

Welding parameters, such as speed and temperature must be established with trials on site, prior to any welding works.

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### Notes on Application / Limitations

Installation works shall only be carried out by Sika trained contractors, experienced in the lining of tunnels and underground structures.

The membrane is not resistant to permanent contact with material including bitumen, and plastic other than PVC; on these it requires a separation layer of Geo-textile (> 300 g/m<sup>2</sup>)

The Sikaplan® WP 1120-20 HL is not UV stabilized and must not be installed on structures where it is permanently exposed to UV-light and weathering.

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### Value Base

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.

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### Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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**Legal Note:** All data in our product information are based on our current knowledge and experience. They do not release users from careful testing of the application and strict observation of the relevant processing regulations because of the wide range of possible influences during the application and use of our products. Legally valid assurances of specific characteristics or suitability for special purposes of application other than those provided in our documentation for the specific product cannot be inferred from our information. The recipient or processor of our products at their own responsibility must follow any protective rights or existing laws and provisions. Moreover our general terms and conditions of sale and warranty are valid.

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