

Product Data Sheet

Edition 17/06/2008

Identification no:

02 07 04 10 100 0 200000

Sikaplan® WP 1100-20HL

(Sikaplan®-14.6 yellow)

(Template for local translation, only for internal use)

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(Sikaplan®-14.6 yellow)

Sheet waterproofing membrane - Basement

Construction**Product Description**

Sikaplan® WP 1100-20HL is a homogenous sheet waterproofing membrane with a signal layer, based on polyvinylchloride (PVC-P).

Uses

- Waterproofing of all kinds of below ground structures against groundwater

Characteristics / Advantages

- High resistance to ageing
- High tensile strength and elongation
- Resistant to root penetration and micro-organisms
- Resistant to natural aggressive mediums in ground water and soil
- High water vapour transmission ability
- High resistance to mechanical impact
- High dimensional stability
- High flexibility in cold temperatures
- Heat weldable
- Suitable for contact with acidic soft water (low pH aggressive to concrete surfaces)
- Suitable for installation on weak substrates (i.e. with a cohesive/pull-off strength < 1.5 N/mm²)
- Can be installed on damp and wet substrates

Tests**Approval / Standards**Product Declaration DIN EN 13 967.
CE Approval No. 1349-CPD.**Product Data****Form****Appearance / Colours**

Rolled sheet membrane, homogenous.

Surface: smooth

Membrane thickness: 2.00 mm

Colour: top layer- yellow / bottom layer- black

Packaging

Roll size: 2.20 m (roll width) x 20.00 m (roll length).

Unit weight: 2.60 kg/m²

Storage

Storage Conditions	Rolls must be stored in their original package, in horizontal position and under cool and dry conditions. They must be protected from direct sunlight, rain, snow and ice, etc.
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Technical Data

Product Declaration	EN 13967: (2006) mandatory only for European countries	(1349-CPD)
Visible Defects	Pass	(EN 1850 – 2)
Straightness	≤ 75 mm / 10 m	(EN 1850 – 2)
Thickness	2.00 (-5 / + 10%) mm	(EN 1849 – 2)
Mass per Unit Area	2.60 (-5 / + 10%) kg/m ²	(EN 1849 – 2)

Mechanical / Physical Properties

Water Tightness	To liquid water: Pass	(EN 1928 B (24h / 60kPa))
Tensile Strength	Machine direction: ≥ 15 N/mm ²	(EN 12311 – 2)
	Cross direction: ≥ 14 N/mm ²	(EN 12311 – 2)
Elongation	Machine direction ≥ 300%	(EN 12311 – 2)
	Cross direction: ≥ 280%	(EN 12311 – 2)
Resistance to Impact	≥ 750 mm	(EN 12691: 2005)
Durability of Water Tightness	Against ageing: Pass	(EN 1296 (12 weeks); (EN 1928 B (24h / 60kPa))
	Against chemicals Pass	(EN 1847 (28 d / +23°C); ((EN 1928 B (24h / 60kPa))
Accelerated Ageing	In an alkaline environment, tensile strength: Pass	(Appendix C (24 weeks / +90°C)); (EN 12311 – 2)
Bitumen Compatibility	No performance determined	(EN 1548 (28 d / +70°C)); (EN 1928 A)
Resistance to Static Load	≥ 20 kg	(EN 12730 (Method B, 24h / 20kg))
Resistance to Tear	≥ 500 N (nail shank)	(EN 12310 – 1)
Water Vapour Transmission	18 000 μ (+ / - 5000)	(EN 1931 (+23°C / 75% r. h))
Joint Strength	≥ 1100 N / 50 mm	(EN 12317 – 2)

Resistance

Reaction to Fire	Class E	(EN 13501 – 1)
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System Information

System Structure	Ancillary Products: <ul style="list-style-type: none">- Sikaplan® WP laminated metal for fixing pieces- Sikaplan® WP Disc 80/10 mm for fixing pieces- Sika® Waterbar, Type AR and Type DR for fixing pieces and waterproofing concrete joints
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Application Details

Substrate Quality	<p>In-situ concrete: Clean, sound and dry, homogeneous, free from oils and grease, dust and loose or friable particles.</p> <p>Shotcrete: The profile of the shotcrete surface must not exceed a ratio of length to depth of 5 : 1 and its min. radius must be 20 cm. The shotcrete surface must not contain broken aggregates. Any leaks must be sealed with Sika® waterproof plugging mortar, or drained with a Sika® Flexo Drain. Where necessary to achieve the desired profile/surface, apply a fine gunite layer on the shotcrete surface with a minimum thickness of 5 cm and aggregate diameter not exceeding 4 mm. Steel (girders, reinforcement mesh, anchors etc.) must also be covered with a minimum 5 cm of gunite. The surface of the shotcrete and gunite must be cleaned (no loose stones, nails, wires, etc.).</p>
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Application Conditions / Limitations

Substrate Temperature	0°C min. / +35°C max.
Ambient Temperature	+5°C min. / +35°C max.

Application Instructions

Application Method / Tools	<p>Installation method: Loose laid and mechanically fastened, or loose laid and ballasted in accordance with the separate Sika Method Statement for sheet waterproofing membrane installations.</p> <p>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 (such as the manual Leister Triac PID / automatic: Leister Twinny S / semi-automatic: Leister Triac Drive).</p> <p>Welding parameters, such as speed and temperature must be established with trials on site, prior to any welding works.</p>
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Notes on Application / Limitations	<p>This product must only be used by Sika approved contractors.</p> <p>The membrane is not resistant to permanent contact with materials including bitumen, and plastics other than PVC; on these it requires a separation layer of geotextile (> 300 g/m²).</p> <p>The watertightness of the structure must be tested and approved after completion of the membrane installation works according to the requirements of the client's specifications.</p> <p>The membrane is not UV stabilised and can not be installed on structures permanently exposed to UV light and weathering.</p>
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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.

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.

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.

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.

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