

Sikaplan® WP 1100-30HL (Sikaplan®-24.6)

3.0 mm thick, homogeneous, PVC based sheet
waterproofing membrane

Product Description Sikaplan® WP 1100-30 HL is a 3.0 mm thick, homogeneous, plasticized PVC based sheet waterproofing membrane.

Uses ■ Waterproofing of all types of below ground civil engineering structures against groundwater ingress

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 capability
■ High resistance to mechanical impact
■ High dimensional stability
■ High flexibility in cold temperatures
■ Heat weldable
■ Suitable for installation on compacted soil
■ 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 Conforms to DIN 16 938
Product Declaration DIN EN 13 967
CE Approval No. 1349-CPD-029:06

Product Data

Form

Appearance / Colours Rolled sheet membrane, homogeneous.
Surface: smooth
Membrane thickness: 3.00 mm
Colour: top layer- yellow / bottom layer- black

Packaging Roll size: 2.20 m (roll width) x 15.00 m (roll length).
Unit weight: 3.90 kg/m²



Storage

Storage Conditions / Shelf-Life	24 months with the rolls stored as originally packaged, in a horizontal position, in dry conditions and at temperatures between +5°C and +25°C. They should be protected from direct sunlight, rain, snow and ice etc.
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Technical Data

Chemical Base	Soft PVC (PVC-p-NB)
Thickness	> 3.00 mm (DIN 53353)
Water Vapour Diffusion Resistance	< 21'000 µ (DIN 53122)

Mechanical / Physical Properties

Tensile Strength	Longitudinal and transversal: > 15.20 MPa (DIN EN ISO 527-3)
Elongation	Longitudinal and transversal: > 300% (DIN EN ISO 527-3)
Resistance to Impact	Watertight at a drop height of 600 mm (drop-weight of 1000 gms) (DIN EN 12691)
Behaviour under Hydrostatic Pressure	Watertight at 60 kPa (DIN EN 1928)
Dimensional Change after Storage in Heat	At 6 h/+80°C: < 2.54% (DIN EN 1107-2)
Behaviour when Folding in Cold	No cracks at -20°C. (DIN EN 495-5)
Joint Strength	1930 N/50mm (DIN EN 12317-2)
Resistance	
Appearance after Storage in Heat	No blistering, cracks or capillaries. (DIN 53377)

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 waterproofing concrete joints
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Application Details

Substrate Quality	In-situ concrete: Clean, sound and dry, homogeneous, free from oils and grease, dust and loose or friable particles. Shotcrete: The profile of the shotcrete surface must not exceed a ratio of length to depth of 5 : 1 and its min. radius should be 20 cm. The shotcrete surface must not contain broken aggregates. Any leaks should 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 min. 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.).
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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 installation.</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). Welding parameters, such as speed and temperature must be established with trials on site, prior to any welding works.</p>
Notes on Application / Limitations	<p>This product should only be used by Sika approved contractors.</p> <p>The membrane is not resistant to permanent contact with some 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 should not be installed on structures permanently exposed to weathering.</p>
Value Base	<p>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.</p>
Local Restrictions	<p>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.</p>
Health and Safety Information	<p>For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.</p>
Legal Notes	<p>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.</p>



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