

Sikaplan® WP 3100 -15R

(Trocac® WBV, 1.5 mm)

Sheet waterproofing membrane – Swimming pool

Product Description	Sikaplan WP 3100- 15R is a sheet waterproofing membrane, reinforced with woven fabric and based on Polyvinylchloride plastified (PVC-P)
Uses	Waterproofing lining of indoor and outdoor swimming pools.
Advantages	<ul style="list-style-type: none"> ■ High resistance against: ageing ■ High tensile strength and elongation ■ Resistant against common environment-influence ■ UV -stabilized ■ Hygienic and resistant to algae growth ■ Resistant to chlorinated water and common swimming pool cleaning chemicals ■ High water vapour transmission ability ■ Resistant to permanent water temperature of max. +32° C ■ High dimensional stability ■ Excellent flexibility in cold temperatures • Heat weldable ■ Can be installed on damp and wet substrates
Approval / Standards	Product Declaration EN 13361 – Geo-synthetic barriers – Characteristic required for use in the construction of reservoirs and dams. CE –Approval No. 1349-CPD
Product Data	
Form	
Appearance / colours	<p>Rolled sheet membrane, reinforced</p> <p>Surface: structured</p> <p>Membrane thickness: 1.50 mm.</p> <p>Colours: blue 5015, beige 5096, green 5097, blue 5098, light-blue 5099, white 5100, blue-grey 5113, grey 5222</p>
Packaging	<p>Roll sizes: 1.65m / 2.05m (roll widths) x 16.50m / 25.00m (roll lengths).</p> <p>Unit weight: 1.80 kg/m²</p>
Storage	
Storage Conditions	Rolls must be storage in their original packing, in horizontal position and under cool and dry conditions. They must be protected from direct sunlight, rain, snow and ice. Etc. The product does not expire during correct storage.



Technical Data

Production Declaration	EN 1336 : (2006) mandatory only for European countries	1349-CPD
Thickness	1.5 (-5 / + 10%) mm.	
Mass per Unit Area	1.8 (-5 / + 10%) kg/m ²	EN 1849 -2
Thermal Expansion	$15 \times 10^{-6} (\pm 50 \times 10^{-6}) 1/k$	ASTM D696 - 91
Water Permeability	$\leq 10^{-7} m^3 \times m^{-2} \times d^{-1}$	EN 14150
Tensile Strength	Machine 1100 (± 200) N / 50mm	ISO 527 – 1/3/5
	Cross 1100 (± 200) N / 50mm	ISO 527 – 1/3/5
Tear Strength	Machine ≥ 60 kN/m	ISO 34, method B, V = 50mm/min.
	Cross ≥ 60 kN/m	ISO 34, method B, V = 50mm/min.
Elongation	Machine ≥ 15%	ISO 527 – 1/3/5
	Cross ≥ 15%	ISO 527 – 1/3/5
Burst Strength	≥ 12%	EN 14151, D=1.00m
Static Puncture	3.15 (± 0.55) kN.	EN ISO 12236
Low Temperature Behaviour	≤ -20°C	EN 495 -5
Weathering	Remaining tensile strength and elongation ≥ 75%	EN 12224, 350 Mj/m ² , ISO 527 – 3/5/100
Micro Organism	Change of tensile strength ≤ 15%	EN 12225, ISO 527 – 3/5
	Change of elongation ≤ 15%	EN 12225, ISO 527 – 3/5
Oxidation	Change of tensile strength ≤ 25%	EN 14575, ISO 527 – 3/5
	Change of elongation ≤ 15%	EN 14575, ISO 527 – 3/5
Environmental Stress Cracking	This method of testing is only suitable for Flexible polyolefin (FPO) based materials	ASTM 5397 - 99
Leaching (water soluble)	A (hot water): change of elongation ≤ 10%	EN 14415
	B (alkaline liquid): change of elongation ≤ 10%	EN 14415
	C (organic alcohol): change of elongation No performance determined	EN 14415
Resistance to Roof Penetration	Pass	EN 14416

System Information	
System Structure	<p>Ancillary Products:</p> <ul style="list-style-type: none"> - Sikaplan® WP laminated metal for fixing pieces - Sikaplan® WP seam sealant - Sikaplan® WP 3100 – 12H/15H, (homogeneous membrane for detail works) - Sikaplan® WP 3100 – 14C, black 2903 (lane marking membrane) - Sikaplan® WP 3100 – 15RE (membrane with embossed surface) - Sikaplan® WP Flet 300 PES (Biocide) white - Sikagard® SP disinfectant - Sikasil® Pool, silicone based sealant - Sikaplan® WP solvent welding agent
Application Details	
Substrate Quality	<p>Concrete (new or existing), old linings and completely cured pool coating: Clean and dry, homogeneous, free from oil and grease, dust and loose, friable particles, paint, cement laitance and other poorly adhering materials must be removed.</p> <p>Substrate preparation: The substrate must be disinfected, prior to installation of membrane by spraying disinfectant sikagard® SB, or similar. A cushion layer in form of geotextile (non woven fabric) with min. density of 300g/m2 must be laid underneath the membrane (i.e. Sikaplan® W 300 Felt 300 PES. Biocide, white)</p>
Application Conditions / Limitations	
Substrate Temperature	0° C min. / +35° C max.
Ambient Air Temperature	+5° C min. / +35° C max.
Ambient max. Temperature of Liquids	+32° C (water).
Application Method / Tools	<p>Installation method Loose laid and mechanically fixed according to relevant method statement.</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> <p>Cold welding of membrane overlaps with Sikaplan® WP Solvent welding agent is permitted within application limits. All welded seam edges must be sealed with Sikaplan® WP Seam sealant (in same colour as membrane) afterwards.</p>
Notes on Application / Limitations	<p>This product must only be used by Sika approved contractors with experience in lining of swimming pool.</p> <p>Sikaplan® WP 3100- 15R is not suitable as membrane in pools, when exposed to</p> <ul style="list-style-type: none"> - permanent water temperature exceeding +32 C - thermal and hot spring waters - Pools with artificial wave machines. <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 water tightness 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>Cold welding procedures are limited to ambient temperatures of not lower than +10° C / of relative air humidity of not higher than 80%</p>

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 should 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.

