

PRODUCT DATA SHEET

Sikaplan® W Felt 500 PP

POLYPROPYLENE PROTECTION FABRIC FOR DRAINAGE SYSTEMS AND UNDERGROUND WATER-PROOFING

PRODUCT DESCRIPTION

Sikaplan® W Felt 500 PP is a polypropylene non-woven (thermo-fixed) fabric levelling filtration/separation layer in drainage systems. It is also used as a protection/separation layer beneath underground or tunnel waterproofing sheet membranes. Mass per unit area: ~500 g/m².

WHERE TO USE

The product is designed for:

- Filtration or separation in drainage systems
- Surface levelling or protection under sheet waterproofing membranes in tunnels and other underground structures

CHARACTERISTICS / ADVANTAGES

- Highly resistant to ageing
- Optimized tensile strength and elongation

- Resistant to all natural aggressive mediums in ground water and soil
- Suitable for contact with soft water (aggressive to concrete)
- Flexible in cold temperatures
- Can be installed on damp and wet substrates

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 13252 - Geotextiles and geotextile-related products - Characteristics required for use in drainage systems — Filtration and separation (F + S)
- CE Marking and Declaration of Performance to EN 13256 - Geotextiles and geotextile related products - For use in the construction of tunnels and underground structures — Protection (P)

PRODUCT INFORMATION

Packaging	Roll sizes: 2.00 m (roll width) × 25.00 m (roll length)	
Appearance / Colour	Rolled fleece, wrapped in PE-film.	
	Surface	structured
	Colour	white
Shelf Life	5 years from date of production	
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.	
Thickness	(4.0 ± 0.4) mm	(EN ISO 9863-1)
Mass per unit area	(500 ± 50) g/m ²	(EN ISO 9864)

TECHNICAL INFORMATION

Resistance to Static Puncture	(4400 +0/-400) N	(EN ISO 12236)	
Resistance to Dynamic Perforation	Cone drop (10 +7/-0) mm	(EN ISO 13433)	
Protection efficiency	(400 +0/-80) N	(EN 14574)	
Tensile Strength	Longitudinal (MD)	(21.0 +0/-2.1) kN/m	(EN 10319)
	Transversal (CMD)	(25.0 +0/-2.5) kN/m	
Elongation at break	Longitudinal (MD)	(60 ± 20) %	(EN 10319)
	Transversal (CMD)	(80 ± 20) %	
Permeability to Liquid Water	Normal to the plane (50 +0/-10) L·m ⁻² ·s ⁻¹	(EN ISO 11058)	
Durability	To be covered within 2 weeks after installation. Predicted to be durable for 25 years in natural soils with 4 ≤ pH ≤ 9 and soil temperatures ≤ 25 °C on the basis of the results of test method B.4.2.2 and a test duration of 28 days.		(EN 13256)
Opening Size	Characteristic (72 ± 30) μm	(EN ISO 12956)	
Ambient Maximum Temperature of Liquids	+32 °C		

APPLICATION INFORMATION

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

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.

LIMITATIONS

Sikaplan® W Felt 500 PP is not resistant to permanent exposure to weathering and UV-light

ENVIRONMENT, HEALTH & SAFETY

HAZARDOUS PRODUCT ACT - SECTION 2

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

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 10:1 and its min. radius must be 20 cm.

The shotcrete surface must not contain broken aggregates.

Any leaks shall be sealed with Sika® waterproof plugging mortar, or drained with Sika® FlexoDrain.

Where necessary to achieve the desired profile/surface, apply a fine sprayed concrete 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 fine sprayed concrete.

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Sudbury; Toronto (Ontario)
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APPLICATION METHOD / TOOLS

Installation method:

Loose laid and mechanically fastened in accordance with the Sika® application manual and installation instructions.

Surface levelling and protective felts are spot fastened with Sikaplan® WP or WT discs.

On sidewalls at least one to two Sikaplan® WP or WT discs per m² shall be used and at the crown two to three.

As an alternative to tunnel discs a contact fastening system (hook and loop) in pattern of points or strips can be used.

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

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Product Data Sheet

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