

SMYLEX 5-999 ECO FRIENDLY POLYESTER BREATHABLE MEMBRANE



High performance membrane, capable to combine breathability, water and wind resistance. It is resistant, washable and recyclable so really sustainable. Suitable for various textile applications like military garment, outdoor garment, prét-à-porter garment, shoes, home accessories (like cover matress) and medical.

Available thickness: 10 my, 12 my, 15 my, 20 my, 25 my

Smylex S999 is a monolithic micro-embossed membrane, water resistant and breathable, made of polymer based co-polyester.

The membrane has monolithic structure, without any presence of micro-holes. The transpiration process is carried out according to the absorption-diffusion-desorption model. This phenomenon happens thanks to the hydrophilic (affinity with water) and hygroscopic (ability to absorb moisture) nature of the film that enable the humidity to pass from the side with the higher concentration to the side with the lower one.



This co-polyester membrane does not contain halogens (fluorine or chlorine).

Other membranes available on the market are made of PTFE (polytetrafluoroethylene), a material of the PFC family (polyfluoride chemicals). It is well known that these materials, during their production cycle and during their disposal, can emit substances that are harmful to the environment. Fluorinated compounds (PFC) used in the production of PTFE are also suspected of being harmful to humans.

Smylex membrane is PTFE-free and PFC-free. If bonded with polyesters, it is recyclable because it belongs to the same polymeric family. Thanks to this it is possible to close the loop in the life cycle of clothing or footwear improving the sustainability of the garment.

Easy to handle during production as it does not need release paper or backing. The film reel unwinds without difficulty or blocking phenomena, thanks to the formulation and micro-embossing.

These characteristics are ideal for a faster production



Example of typical properties

Smylex S-999	Material	Melting Point [°C]	WVTR RET [m²Pa/W]	WVTR Lissy [g/m² - 24 h.]	Hydrohead [cm H2O]
Thickness 15 my	co-PES	185	< 4	4500	>1000