

The Sympatex Membrane.

Key Facts.

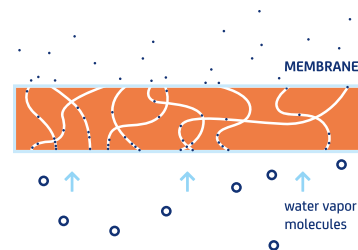
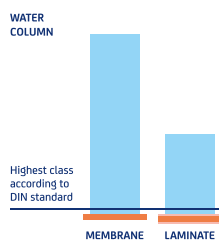
Built to perform.

The Sympatex membrane is a hydrophilic, non-porous functional membrane based on polyester. It provides reliable weather protection and is suitable for demanding applications in apparel, footwear, corporate & workwear, and technical end uses.

The pore-free structure consists of hydrophilic molecular chains that transport water vapour from the inside to the outside through absorption and diffusion. As the activity level – and therefore perspiration – of a person wearing a product with a Sympatex membrane increases, the hydrophilic areas of the membrane slightly swell. This creates additional space for water vapour transport, meaning breathability increases dynamically.

The more moisture is produced, the more efficiently water vapour is transported to the outside, helping to maintain a balanced body climate even during high levels of exertion.

Properties of the Sympatex membrane

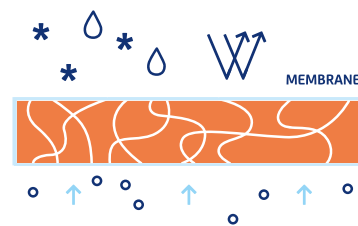
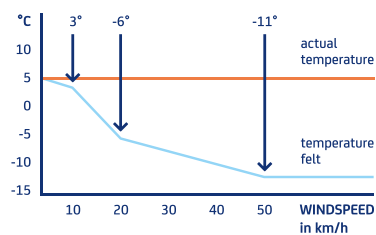


Waterproof

Our membrane has a water column of over 45,000 mm. As a comparison: The highest standard class of DIN EN 343 is reached from 2000 mm.

Breathable

The hydrophilic molecular chains dissipate the water vapor to the outside. The effect increases dynamically with increasing temperature or umidity difference.



Windproof

Our membrane is absolutely windproof according to DIN EN ISO 9237 and thus ensures that the warming layer of air is not carried away from the body.

Durable

We deliberately avoid pores in our membrane that could become clogged over time. Thus, the function of our membrane is maintained for a long time.

Designed to care.

The Sympatex membrane is engineered to be PFAS-free and is fully based on polyester. This makes it compatible with monomaterial laminate constructions designed for recyclability and supporting textile-to-textile recycling approaches.

65%

bio-based
content

Alongside laminate constructions incorporating recycled textile materials, the proportion of bio-based raw materials in the membrane polymer is continuously being increased.* For selected polymer grades, this share has risen from around 25% to more than 65%, based on a certified mass balance approach.

The bio-based content relates exclusively to the membrane polymer and does not change its chemical structure or performance. The membrane remains waterproof, windproof, breathable, elastic, and fully polyester-based

The Sympatex membrane meets recognised standards for product safety and responsible manufacturing, including STANDARD 100 by OEKO-TEX® and bluesign®.

Bio-based and recycled raw materials complement textile-to-textile recycling approaches and contribute to gradually reducing dependence on fossil resources. By combining monomaterial constructions, recycled and bio-based inputs, and design approaches that enable recyclability, Sympatex continues to develop material solutions designed for long-term use and future material cycles.

Membranes with increased bio-based content are expected to become commercially available in laminates during 2026.

** The bio-based share refers to the origin of the raw materials, not to the chemical structure of the material. The membrane remains fully polyester-based because the polymer structure is unchanged.*

