



## WHAT IS SYMPATEX®?

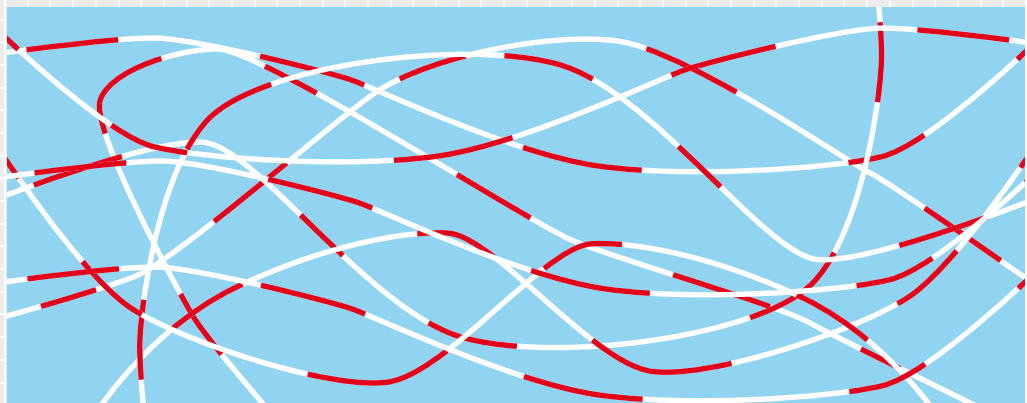
- Lightweight and breathable non-porous waterproof membrane
- 100% waterproof
- Extremely breathable
- 100% windproof
- Quality assured: Has lifetime guarantee
- Easy care
- Environmentally friendly

Sympatex® is unique. Unlike other waterproof membranes, it is a non-porous material providing high moisture transmission which allows your feet to breathe whilst still remaining dry. Sympatex® is also resistant to clogging from dirt and oils, so moisture transmission can continue despite harsh external outdoor environments.

It has 2 componets (a co-polymer) Polyester and Polyether. Poly**ester** rejects water (Hydrophobic), Poly**ether** attacts water (Hydrophilic). This composition allows water vapour to be pulled through the membrane without it needing holes (an Intelligent Hydrophilic Membrane).

## HOW SYMPATEX® BREATHES

The membrane is 30% Polyether (Red) - Polyether is Hydrophilic (water attracting). Moisture vapour passes through the membrane via the Polyether molecules, by a process of absorption and re-absorption. There are 57 billion Polyether molecules per square centimetre.





## BREATHABILITY COMPARISONS

### Conventional Waterproof Membrane

Microscopic holes in the membrane are too small for water droplets to pass through from the outside, but are large enough to allow water vapour through from the inside.

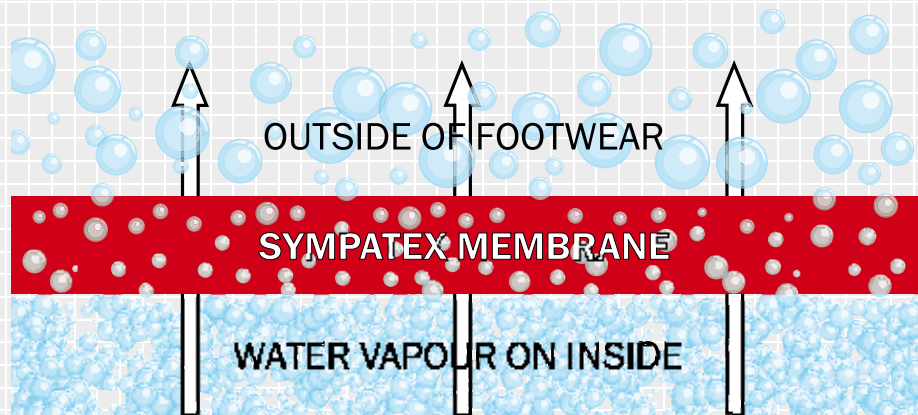


#### Problems:

- Pores can become blocked with dirt, oils etc.
- Stretch in the fabric is limited as this distorts the construction.
- Gore-Tex® is a porous membrane

### Sympatex® Waterproof Membrane

Sympatex® offers a complete barrier against the elements. The water vapour is pulled through the membrane on a molecular level – therefore no need for holes. This is known as an Intelligent Hydrophilic Membrane.



#### Benefits:

- Breathability not affected by pores becoming blocked
- Greater flexibility due to the construction.