



Closing the Loop: Sympatex and the closed recycling loop

Accepting responsibility for mankind and nature is part of the actual corporate philosophy of Sympatex Technologies. The company strategy of the functional textile specialist has always been based on sustainable technologies and working processes.

The main focus of the sustainability strategy of Sympatex is recycling, and closing the loop is the great aim. This closed recycling loop means that as little of our resources (water, energy, raw materials) as necessary is used. By doing this, the ecological footprint will be improved continuously. Sympatex offers ideal requirements for this closed recycling loop.

1. The 100% recyclable Sympatex membrane ...

can be reused just like PET bottles. The 100% waterproof and windproof as well as optimally breathable membrane is made of polyether-ester, a copolymer, that represents no health hazard. Unlike comparable competing products, it is PTFE-free and PFC-free. The environmental organisation Greenpeace e.V. mentioned Sympatex during their DETOX campaign as a suitable fluorine-free alternative.ⁱ If you compare the production of a Sympatex copolymer with a PTFE polymer, you will see a 50% improvement of the carbon footprint.

2. The 100% recycled Sympatex membrane ...

For the production of the membrane, the so-called pre-consumer recycling has been a standard procedure for Sympatex for many years. During this procedure, the material input stream is reduced by up to 15%. The material and the energy savings are achieved by a mono-material return of membrane production waste into the production process. The next step of the innovation process now aims at the **100% recycled membrane**, for which membrane production waste that hasn't been used before is completely recycled. The product features of the highly functional Sympatex membrane can be guaranteed without a

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noticeable loss of quality. After the qualitative recycling process, a new **100% recycled membrane** was created from the recycled material.

3. The lamination of the Sympatex membrane ...

with outer materials and linings made of polyester results in mono-material polyester laminates. This material combination is the ideal precondition for a direct recycling process using existing technologies.

4. The recycled outer materials and linings by Sympatex made of polyester...

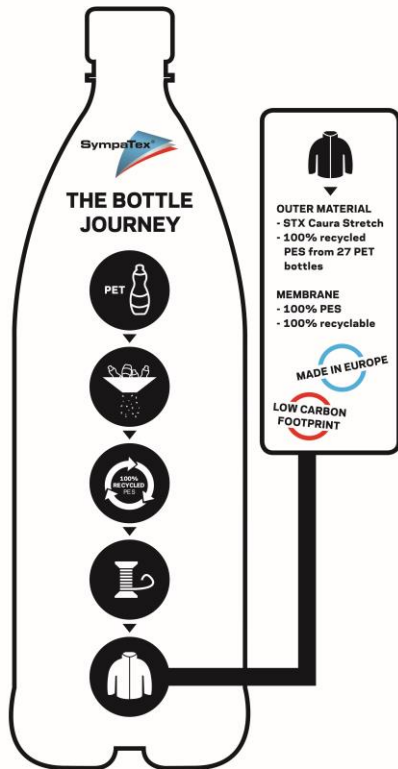
are part of the sustainability strategy of Sympatex. The material basis of these fabrics is a yarn that is made of recycled PET bottles. The Munich-based functional specialist cooperates with the Italian yarn specialist SINTERAMA S.P.A., whose trademark “New Life” is certified according to the internationally renowned “Global Recycle Standard”. The “New Life” yarns are produced by using recycled PET bottles that are collected and processed in northern Italy. 100% “made in Italy” and 100% transparent.

The applied recycling process is a mechanical process without the addition of polluting chemicals. If you compare the production of 1 kg recycled “New Life” fibres with 1kg oil-based polyester fibres, then the ecological balance is excellent: 32% CO₂ reduction, 60% less energy and 94% less water consumption. Instead of 60 litres, only around three litres of the limited resource are used.ⁱⁱ

For the outer material of a standard Sympatex men's jacket, for instance, 27 PET bottles (0.5 litres) are recycled and thus reused.

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The outer materials that are made of recycled yarns represent up to 90% of a final Sympatex laminate product. They are a 100% recyclable product due to the 100% recyclable PES membrane. The performance of recycled and non-recycled PES materials is comparable at a high level.

5. The optimised supply chain...

also results in a further improvement of the ecological footprint. The recycled lining and outer fabrics are entirely produced in the EU (< 1000 km, from PET bottle collection to laminate production)

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6. The 100% recycled functional laminate...

is the combination of the 100% recycled Sympatex membrane and a 100% recycled PES lining or outer fabric. This is where the Sympatex recycling loop closes.

A growing awareness of sustainable materials and a growing worldwide demand in the apparel sector support the positive global aspects of this ecological progress. Conclusion: reduce, reuse, recycle – the environment will benefit from it.

ⁱ Greenpeace, DETOX campaign, „Chemistry for any weather“, 10/2012, p. 25

<http://www.greenpeace.org/romania/Global/romania/detox/Chemistry%20for%20any%20weather.pdf>

ⁱⁱ

http://www.sinterama.com/site/app01/Ing/eng/public.nsf/content?openagent&grp=3&sec=3&psp=WCNBRAC_000004&act=prd&imp=&&imp=

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