

Climate-neutral children's shoes

Sympatex Technologies has been producing advanced functional materials for clothing and footwear since 1986, during which time it has gained an enviable reputation for its products. Together with selected partners, the company develops, manufactures and distributes membranes, laminates, functional textiles and finished products worldwide. Its polyether-ester membrane is claimed to be highly breathable, 100% wind and waterproof, able to regulate temperature and be 100% recyclable. Furthermore, it is totally PTFE- and PFC-free, both of which are damaging to the environment. It is also bluesign* certified and has received an Öeko-Tex-Standard 100 certificate.

The technologies and procedures used to produce it are based on strict principles of ecological responsibility and sustainability, with a particular focus on achieving an optimal carbon footprint and these principles lie behind its latest innovation. Following the launch at OutDoor Friedrichshafen in June last year of its recycled and recyclable Functional Jacket 4 made out of 32 PET bottles, Sympatex launched its second innovative lighthouse project for 2017 at last October's Lineapelle materials exhibition in Milan in the form of recycled and climate-neutral children's footwear. The company says these shoes have been produced using up to 90% recycled raw material, including a sole made with over two-thirds recycled rubber content.

Dr. Rüdiger Fox, CEO of Sympatex Technologies observes that, "Already since the foundation of Sympatex approximately 30 years ago, the world population has been growing by 50%. At the same time, humankind has also increased the consumption of resources on earth up to 1.6 times more than our planet would be able to recover. We are currently consuming the reserves of our children's generation and leave them piles of rubbish behind. This new



lighthouse project is an attempt to make our contribution to counteract this trend." The company does not, however, plan to produce its own range of shoes but merely to demonstrate just what is possible for footwear in terms of the ecology.

The project has set out to combine the highest expectation levels for performance and modern shoe production with optimal sustainability at the same time. "We invite the entire industry to replicate these technological opportunities that are available already today," adds Dr. Fox. The material basis of these children's shoes consists of 100% recycled outer fabric and lining laminates from the existing Sympatex portfolio. The membrane's production waste is completely reused via pre-consumer recycling and consists of 100% polyether-ester.

The 100% recycled outer fabric and linings contain GRS-certified (Global Recycled Standard) and bluesign

certified polyester fibres made from recycled PET bottles. Comparing the production of 1 kg of used recycled polyester fibres with 1 kg of petroleum-based polyester fibres, the life cycle assessment is said to be excellent, with a 32% CO₂ reduction, 60% energy savings and 94% less water consumption. In this case, instead of 60 litres, only some three litres of this increasingly scarce resource are consumed. Furthermore, Sympatex uses a toxic-free and biologically tanned leather upper which in turn can be integrated into the recycling process. Recycled and recyclable material is also used for the insole as well as for reinforcements, sewing threads, shoelaces and even adhesives. Thus, the entire functional shoe consists of some 90% recycled material which in turn can be integrated into the recycling process. In addition, more than two-thirds of the sole is made out of recycled rubber.

The Sympatex membrane has been completely climate-neutral since last year. Now the company has produced these new recycled children's functional shoes in a completely climate-neutral way and has acquired a respected climate protection certificate. Since the beginning of last year, Sympatex has also helped its customers to compensate for inevitable CO₂ emissions. In this the company cooperates with the Munich based climate protection consultancy, ClimatePartner. Customers can obtain a certificate which can be attached to the label of the manufactured product via a QR code, which should ensure transparency for the consumer.

**The bluesign system reduces environmental impact over the entire textile supply chain. Öeko-Tex Standard 100 is a worldwide consistent, independent testing and certification system for raw, semi-finished and finished textile products at all processing levels, as well as accessory materials used.*