

NEWS RELEASE

Teijin Frontier develops a new breathable, UV-blocking polyester material replicating the structure of a traditional bamboo blind

Tokyo, Japan, May 23, 2024 --- Teijin Frontier Co., Ltd., the Teijin Group's fibers and products converting company, today announced the development of a new, multifunctional and comfortable polyester material that combines high breathability and UV protection. This new product reproduces the structure of a traditional Japanese "Sudare" blind (bamboo blind), which allows breezes to pass through while blocking out sunlight.

As extremely high summer temperatures become increasingly common, Teijin Frontier developed this new polyester to meet market demands for materials with enhanced heat protection functions. Heat protection encompasses breathability, UV resistance and anti-stickiness. However, until now, breathability – achieved by gaps between fibers -- and UV protection were thought to be mutually exclusive.

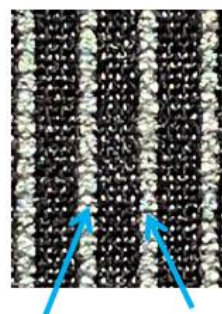
To solve this dilemma, the company created a structure with slit-shaped, highly breathable areas in either the warp or weft direction of the fabric. These three-dimensional gaps, similar to those in a bamboo blind, allow the material to deliver both excellent breathability and high UV blocking performance of 85 percent or more. The structure allows air permeability of $50 \text{ cm}^3/\text{cm}^2 \cdot \text{s}$ or more.

This new product also offers sustainability benefits through the incorporation of recycled polyester in part. Its structure and elastic fibers provide stretch performance, while an uneven surface caused by differences in thread shrinkage and its structure avoid stickiness. Moreover, to achieve the combination of functions, Teijin Frontier also adopt special high-shrinkage technology and dying finishing technology. This material offers potential for use in both fashion and casual clothing.



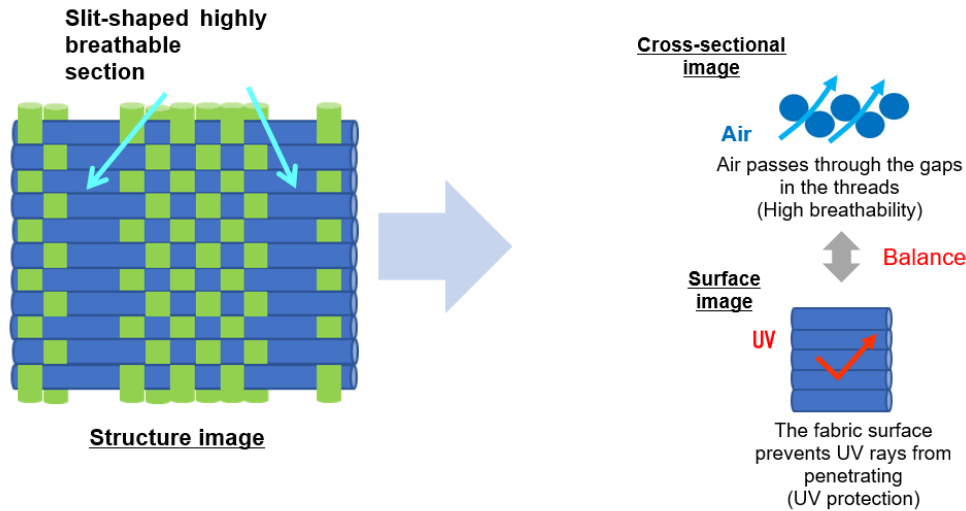
multifunctional and comfortable polyester material

Product Surface



Slit-shaped highly breathable section

Product structure



Teijin Frontier will begin promoting this product for the 2025 spring and summer fashion and casual clothing collections in Japan, aiming for sales of 250,000 meters in fiscal 2024 and 750,000 meters in fiscal 2027.

About the Teijin Group

Teijin (TSE: 3401) is a technology-driven global group with two core businesses: high-performance materials and healthcare solutions. Established in 1918 as Japan's first rayon manufacturer, Teijin today comprises some 170 companies employing 20,000 people in 20 countries. Through "Human Chemistry, Human Solutions," Teijin relentlessly strives to aim to be a company that supports the society of the future by protecting the global environment and addressing the needs of people and communities. Teijin posted consolidated sales of JPY 1,032.8 billion (USD 6.6 billion) and total assets of JPY 1,251.0 billion (USD 8.0 billion) in the fiscal year ending March 31, 2024.

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