

**NEWS RELEASE****Teijin Frontier Develops New Functional Fabric  
Featuring Unique Span-like Texture and High Stretchability**

Tokyo, Japan, June 8, 2023 --- [Teijin Frontier Co., Ltd.](#), the [Teijin Group](#)'s fibers and products converting company, today announced the development of SOLOTEX® LIBERTE, a new functional fabric for sportswear and casual wear. SOLOTEX® LIBERTE fabric features a unique span-like texture and exceptional stretchability, as well as excellent colorability, luster and natural swelling. This innovative fabric combines comfort with sustainability, thanks to its incorporation of plant-derived raw materials.



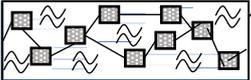
SOLOTEX® LIBERTE

SOLOTEX® LIBERTE uses polytrimethylene terephthalate (PTT) fiber featuring a proprietary low-shrinkage technology and a distinctive yarn processing method that maximizes the properties of PTT while controlling the raw yarn's heat shrinkability. Specifically, this product uses side-by-side composite yarn (\*), which Teijin Frontier cultivated with its variety of SOLOTEX® stretch fabrics, that combines PTT polymer as the core yarn with newly developed low-orientation, low-shrinkage PTT monocomponent as the sheath yarn. The result is a blended yarn with two different shrinkage properties. After the core and sheath yarns are randomly mixed using fiber processing technology, they are knitted using high-density knitting equipment.

\*Side-by-side composite yarn achieves high stretchability by laminating two types of polymers with different heat shrinkability characteristics to form a coil-like crimp structure.

SOLOTEX® LIBERTE fabric features a soft texture and smooth finish. It also provides beautiful aesthetics, including vivid colors and a luxurious matte glossy appearance. The material has a high silhouette with a moderate drape. Apparel made with SOLOTEX® LIBERTE provides comfort, thanks to its soft stretch, light weight, water absorption and quick drying properties.

## Technical details for **SOLOTEX® LIBERTE**

Process	Details	Structure image
Original yarn	<ul style="list-style-type: none"> <li>- <u>Core yarn</u>: Made of side-by-side PTT polymer composite yarn</li> <li>- <u>Sheath yarn</u>: low orientation and low shrinkage PTT single component raw yarn</li> </ul>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Core side-by-side composite yarn</p>  </div> <div style="text-align: center;"> <p>Core-sheath processed yarn structure</p>  </div> </div> <div style="text-align: center; margin-top: 10px;">  <p>Sheath: low orientation low shrinkage original thread</p> </div>
Yarn processing	<ul style="list-style-type: none"> <li>- Random core-sheath different shrinkage combined filament yarn technology</li> </ul>	
Knitting	<ul style="list-style-type: none"> <li>- Appropriate knitted fabric structure design technology</li> <li>- High density knitting technology</li> </ul>	 <p>Knitted fabric</p>
Processing	<ul style="list-style-type: none"> <li>- Low tension dyeing technology</li> <li>- Processing technology that imparts high color development and a soft texture</li> </ul>	

Material requirements for sportswear and casual wear are becoming more sophisticated. In addition to superior texture and appearance, consumers are demanding exceptional comfort and lower environmental impact. Teijin Frontier's **SOLOTEX®** fiber delivers soft, smooth fabric with an attractive appearance, and supports sustainability by using approximately 40 percent plant-derived raw material.

**SOLOTEX®** has variety of lineups such as stretch fabrics using side-by-side composite yarn and soft and smooth fabric with colorability using PTT monocomponent taking advantage of PTT fiber's characteristics. Teijin Frontier has been widely promoting **SOLOTEX®** in the global market and also developing fabrics that make the most of its characteristics, however, it could not achieve excellent stretchability and sufficient swelling at the same time due to the difficulty in controlling the heat shrinkage of PTT polymer.

Teijin Frontier will begin promoting **SOLOTEX® LIBERTE** globally for the autumn and winter 2024 collections of sportswear and casual wear. The company expects sales of **SOLOTEX® LIBERTE** to reach 500,000m by fiscal 2026.

### 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 aims 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 1,018.8 billion (USD 7.6 billion) and total assets of JPY 1,242.4 billion (USD 9.2 billion) in the fiscal year ending March 31, 2023.

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