


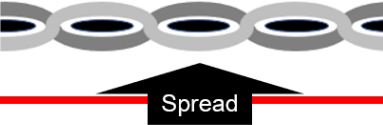

NEWS RELEASE

Teijin Unveils Advanced Spread-tow Carbon Fiber Woven Fabric

Tokyo, Japan, February 17, 2022 --- [Teijin Limited](#) announced today that it has launched a lightweight, strong and cost-effective carbon fiber woven fabric developed with the company's proprietary tow-spreading technology.

The new woven fabric is made with 3K (3,000) carbon fiber filament yarn for applications requiring low weight and design flexibility, such as automotive interior materials and sporting goods. Teijin, using its in-house tow-spreading technology, succeeded in thinning the 3K fabric from a molding thickness of 0.2 mm to approximately 0.15 mm, the same as that of 1K woven fabric, when molded into carbon fiber reinforced plastic (CFRP).

Thanks to the flat undulations of the fabric's intersecting yarns, CFRP made with Teijin's new fabric offers superior smoothness, resulting in more stable strength compared to CFRP made with 1K carbon fiber woven fabric (according to the company's in-house research). In addition, the high efficiency of Teijin's special tow-spreading technology lowers the fabric cost below that of conventional 1K carbon fiber woven fabric. Furthermore, despite using 3K yarn (200g/m²), Teijin reduced the weight by 35%, similar to fabric made with 1K yarn (125g/m²).

Yarn	Spread	Fabric cross-section (image)	Thickness	Weight	Smoothness (Strength stability)	Cost
1K	No		Good (0.15mm)	Good (125g/m ²)	Good	Average
3K	Yes	 Spread	Good (0.15mm)	Good (128g/m ²)	Excellent	Good
3K	No		Average (0.2mm)	Average (200g/m ²)	Average	Excellent

Teijin will now market its new fabric to manufacturers of industrial and sports products. Together with other spread-tow carbon fiber woven fabrics in the Teijin portfolio, the company is targeting sales of JPY 2 billion in fiscal 2030. Going forward, Teijin will continue to strengthen its carbon fiber lineup with other innovative, high-performance materials and solutions under a long-term vision of being a company that supports the society of the future.

Strong, lightweight CFRP is widely used to improve performance and reduce weight in aircraft, industrial and sports applications. Stable strength needed to improve the mechanical properties of CFRP can be realized by relaxing the stress concentration applied to the carbon fibers, resulting in smoother carbon fiber woven fabric for use as a reinforcing material. While increasingly thin carbon fiber filament yarn is being used to produce ever-thinner woven fabrics, the difficulty of producing such yarns can increase the costs of these fabrics.

About the Teijin Group

Teijin (TSE: 3401) is a technology-driven global group offering advanced solutions in the fields of environmental value; safety, security and disaster mitigation; and demographic change and increased health consciousness. Originally established as Japan's first rayon manufacturer in 1918, Teijin has evolved into a unique enterprise encompassing three core business domains: high-performance materials including aramid, carbon fibers and composites, and also resin and plastic processing, films, polyester fibers and products converting; healthcare including pharmaceuticals and home healthcare equipment for bone/joint, respiratory and cardiovascular/metabolic diseases, nursing care and pre-symptomatic healthcare; and IT including B2B solutions for medical, corporate and public systems as well as packaged software and B2C online services for digital entertainment. Deeply committed to its stakeholders, as expressed in the brand statement "Human Chemistry, Human Solutions," Teijin aims to be a company that supports the society of the future. The group comprises more than 170 companies and employs some 20,000 people across 20 countries worldwide. Teijin posted consolidated sales of JPY 836.5 billion (USD 7.7 billion) and total assets of JPY 1,036.4 billion (USD 9.5 billion) in the fiscal year that ended on March 31, 2021.

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