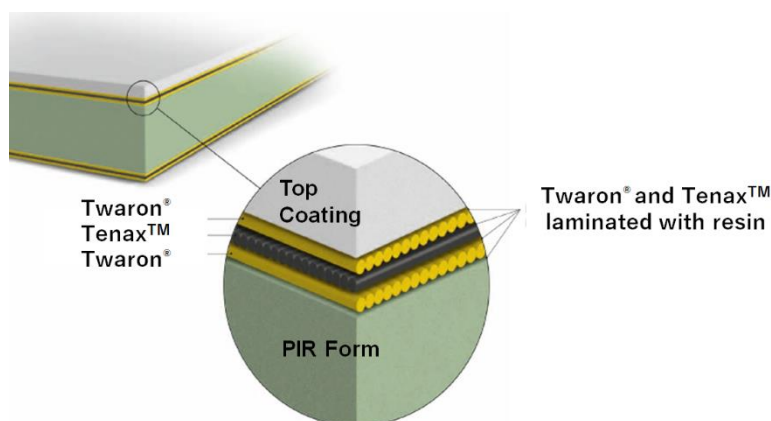


## NEWS RELEASE

### Stedelijk Museum Amsterdam Modern Wing Featuring Teijin-supported Large-scale Composite Facade Celebrates 10<sup>th</sup> Anniversary

Tokyo, Japan, September 30, 2022 --- [Teijin Limited](#) announced today that the modern wing of the [Stedelijk Museum Amsterdam](#) featuring [the world's largest composite facade](#), made with Teijin Group's *Twaron*<sup>®</sup> para-aramid fiber and *Tenax*<sup>™</sup> carbon fiber, is celebrating its 10<sup>th</sup> anniversary this year. Teijin, which operates group companies in Europe under a regional headquarters located in Amsterdam, has been sponsoring the museum since 2007 as a cultural initiative inspired by the company's philosophy of growing and evolving in harmony with society.



Cross section of the facade

The design by Benthem Crouwel Architects was soon widely known as the “bathtub” due to its distinctive shape, features a smooth, seamless and shiny white facade and canopy incorporating 185 composite panels made with the Teijin Group's *Twaron*<sup>®</sup> and *Tenax*<sup>™</sup> advanced fiber materials. Measuring 100 meters by 25 meters and seemingly floating in the air, this world's largest composite facade is a striking contrast to the museum's original neo-renaissance building. Thanks to the design that keeps out rain and dirt and the use of *Twaron*<sup>®</sup> and *Tenax*<sup>™</sup>, this building proves to be practically maintenance-free, making it a sustainable construction that can



Teijin brand logo projected on the “bathtub”

reduce maintenance costs since opening in 2012 to the present. In addition, the smooth and pristine surface of the “*bath tub*” lends itself perfectly to projections of, among other things, video art, which amazes citizens and visitors from all over the world.

It was known that very large building components would be required to produce the facade, but this presented potential problems due to the thermal expansion and distortion of the components over time. Conventional building materials were rejected, but after a number of verifications were performed the builders selected resin-coated sheets made with a combination of *Twaron*<sup>®</sup> and *Tenax*<sup>™</sup>, which minimize the effects of thermal expansion thanks to the fibers’ strength and low coefficients of thermal expansion.

*Twaron*<sup>®</sup> para-aramid fiber produced by Netherlands-based Teijin Aramid B.V. and *Tenax*<sup>™</sup> carbon fiber produced by Teijin Carbon Europe GmbH in Germany were combined with vinylester resin in composite laminates, forming the outer skins of a composite sandwich construction with a core of PIR foam. Whereas resin expands as the temperature rises, both *Twaron*<sup>®</sup> and *Tenax*<sup>™</sup> fibers actually contract, therefore ensuring minimal expansion of the panels to realize a seamless look while creating significant structural stability. Unlike structures made with glass, metal or glass fiber composites, the ingenious design of the “*bath tub*” become a reality through the unique properties of Teijin’s high-performance fibers, creating a high-profile architecture in the center of Amsterdam.

Going forward, Teijin will continue to grow together with local communities and provide products and services that contribute to a more sustainable world.

### **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 some 170 companies and

employs some 20,000 people across 20 countries worldwide. Teijin posted consolidated sales of JPY 926.1 billion (USD 7.2 billion) and total assets of JPY 1,207.6 billion (USD 9.4 billion) in the fiscal year that ended on March 31, 2022.

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