

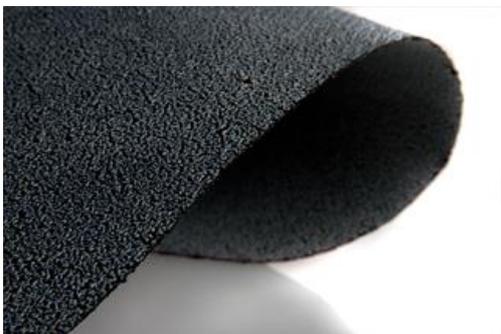
NEWS RELEASE**Tenax™ Carbon Fiber Reinforced Thermoplastics
Qualified by NCAMP**

Tokyo, Japan, April 12, 2023 --- [Teijin Limited](#) has qualified its carbon fiber and polyether ether ketone (PEEK) based materials Tenax™ ThermoPlastic Woven Fabric (TPWF) and Tenax™ ThermoPlastic Consolidated Laminate (TPCL) with [NCAMP](#) (National Center for Advanced Materials Performance). The Federal Aviation Administration (FAA), European Aviation Safety Agency (EASA), and Agencia Nacional de Aviacao (ANAC – National Civil Aviation Agency of Brazil), accept composite specification and design values developed using the NCAMP process.

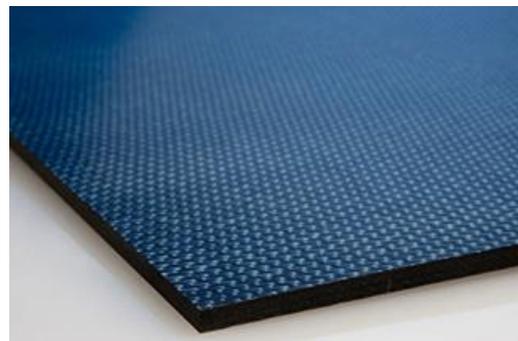


This is the first NCAMP qualification of a carbon fabric reinforced thermoplastic composite material. It is also the first NCAMP qualification of pre-consolidated laminates, which can be used for rapid thermoforming of stamped structural components.

This qualification makes PEEK carbon fabric and consolidated laminate materials technology accessible to a much larger range of OEMs, Tier one, and Tier two suppliers. Manufacturers can use the public NCAMP database to demonstrate equivalency and gain FAA certification at lower cost than qualifying materials themselves. This will be of interest for a wide variety of OEM's which are considering formed shapes with thermoplastic fabric and stamped forms like clips and brackets. Thermoplastic composites are attractive for the growing Urban Air Mobility market and traditional commercial aerospace sectors considering the benefits thermoplastics offer: high build rates, improved crack resistance, melt processing, increased opportunities for recycling, room temp storage and shelf life measured in years.



Tenax™ TPWF



Tenax™ TPCL

Tenax™ TPWF is a woven carbon fiber fabric coated with a thermoplastic polymer and Tenax™ TPCL are completely impregnated, and consolidated sheets made of several layers of Tenax™ TPWF.

The qualified product is based on woven Tenax™ high strength carbon fiber and Vestakeep® polyetheretherketone (PEEK) polymer from Evonik Industries AG, which

achieves high heat, impact and fatigue resistance. Cost reduction is achieved through rapid molding processes allowing improved component manufacturing efficiency. This material is suited for large-scale production of aerospace structural components with high performance requirements.

In order to further support the introduction of this technology, Teijin created a material card of this specific material which is used for process simulation using [Aniform® software](#). This will help part makers and OEM optimize the thermoforming process in order to obtain all benefits of this type of material within a short time and low cost for the process setup.

Aiming to become a company that supports the society of the future, Teijin leverages its core strengths and capabilities in the development and manufacture of strong yet lightweight high-performance carbon fiber products to contribute to reduce greenhouse gas emissions in life cycle of aircrafts. Teijin, as a leading solution provider for aircraft applications, will enhance its market for next-generation aircrafts by developing midstream-to-downstream lineups and related applications such as cost-effective carbon fibers with higher-tenacity and higher-tensile modulus and intermediate materials including thermoplastic prepreg.

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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