

Carbon Fiber Max™ Files Provisional Patent for GX-F™ Nanoengineered Aerospace Composite Platform

Carbon Fiber Max™ expands its patent portfolio with a next-generation aerospace composite designed for electric aircraft, defense, and advanced mobility.

DALLAS, TX, UNITED STATES, June 5, 2026 /EINPresswire.com/ -- [Carbon Fiber Max™](#), a developer of advanced nanoengineered composite materials, today announced the filing of a provisional patent application for Carbon Fiber Max™ GX-F™, a next-generation self-lubricating aerospace composite engineered to deliver exceptional strength, durability, wear resistance, and manufacturability for demanding aviation, aerospace, defense, and industrial applications.

The provisional patent, titled "Carbon Fiber Max™ GX-F: Nanoengineered Self-Lubricating Aerospace Composite and Manufacturing Method," expands the company's intellectual property portfolio and establishes the foundation for a new family of advanced materials designed to bridge the gap between traditional engineering plastics and conventional carbon fiber composites.

GX-F™ incorporates a proprietary architecture utilizing carbon nanotubes, tungsten disulfide nanotubes, graphene nanoplatelets, and advanced thermoplastic matrices to create lightweight, high-performance composite systems that can be injection molded into complex geometries while maintaining exceptional mechanical and tribological properties.

Unlike many traditional composite materials that require labor-intensive manufacturing processes, Carbon Fiber Max™ GX-F™ has been designed with scalability and manufacturability



in mind, allowing for efficient production of components across multiple industries.

"The filing of this provisional patent represents a major milestone for Carbon Fiber Max™ and our long-term vision of redefining what advanced materials can achieve," said Milton Arch, CEO of Carbon Fiber Max™. "GX-F™ is more than a new formulation. It is a platform technology designed to unlock opportunities across aerospace, defense, electric aircraft, robotics, advanced mobility, and next-generation manufacturing."

The company believes GX-F™ has the potential to address longstanding challenges associated with traditional composite materials, including wear, friction, manufacturability, complexity, and lifecycle durability.

Potential applications include:

- Electric aircraft structures and subsystems
- Unmanned aerial systems (UAS) and drones
- Aerospace interior and non-primary structural components
- Battery enclosures and thermal management systems
- Robotics and autonomous systems
- Defense equipment and military platforms
- Industrial automation and high-wear components
- Lightweight transportation systems

As global demand increases for lighter, stronger, and more efficient materials, Carbon Fiber Max™ believes GX-F™ positions the company to pursue opportunities with aircraft manufacturers, defense contractors, advanced mobility developers, robotics companies, and industrial OEMs seeking alternatives to conventional composites.

The filing also opens the door to future licensing opportunities, strategic partnerships, joint development programs, and industry-specific formulations tailored to the requirements of aerospace, defense, transportation, and advanced manufacturing markets.

Carbon Fiber Max™ intends to continue expanding its intellectual property portfolio while advancing testing, validation, and commercialization efforts for both Carbon Fiber Max™ and Carbon Fiber Max™ GX-F™ product families.

About Carbon Fiber Max™

Carbon Fiber Max™ develops advanced nanoengineered composite materials designed to deliver exceptional strength-to-weight performance, durability, wear resistance, and manufacturability across aerospace, defense, transportation, robotics, energy, and industrial applications. The company is focused on creating scalable alternatives to traditional composite materials through proprietary material science and advanced manufacturing processes.

Milton Arch

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Carbon Fiber Max

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