

A REVIEW ON MANUFACTURING OF AEROSPACE GRADE CARBON FIBER AND PREPREGS

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Aerospace-grade carbon fibers (CFs) are specifically engineered to qualify for aviation environments. CF's mechanical strength and durability come from the precursor material and depend on the processing method. Polyacrylonitrile (PAN)-based precursor is mainly used to make high tensile strength CF suitable for airframe structures. This article critically reviews different aspects of making precursors for CF, their processing, and fabrication of CF prepregs. Current trends and future projections of CF for aerospace sectors have also been included.

Keywords: *Aerospace-grade carbon fibers; precursor material; polyacrylonitrile; carbon fiber prepregs*
