

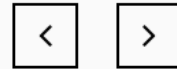
The Benefits of Carbon Fiber

Carbon fiber composites have numerous benefits, standing out from the crowd for several reasons. Below are just a few of the benefits of carbon fiber and why it is the choice material of many engineers and designers around the world.



Lightweight

Carbon fiber is a low density material with a very high strength to weight ratio. This means that carbon fiber is tough without getting bogged down like steel or aluminum, making it perfect for applications such as cars or airliners.



High Tensile Strength

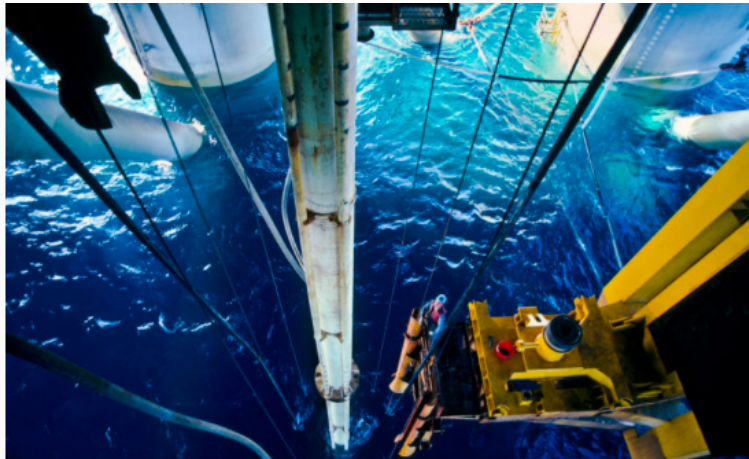
Carbon fiber is known for its high-tensile strength, with repeated testing to demonstrate that it is one of the strongest of all commercial reinforcing fibers.



Resistant to Corrosion

With the strength of carbon-carbon bonds, carbon fiber is naturally resistant to oxidization. This makes carbon fiber well suited for environments where it might be exposed to salt water or corrosive chemical agents.





Low CTE (Coefficient of Thermal Expansion)

Carbon fiber has a low CTE (Coefficient of Thermal Expansion), meaning that it is less likely to change shape when exposed to heat than other materials.



Exceptional Durability

Carbon fiber has superior fatigue properties compared to metal, meaning components made of carbon fiber won't wear out as quickly under the stress of constant use.



Multiple Forms

Carbon fiber is available in a variety of forms (woven, tow, chopped, etc.), making it versatile in its application.



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Low Thermal Conductivity

Carbon fiber has a low thermal conductivity, making a good choice for applications where a heat-resistant material is needed.



Dampens Sound

Due to the way carbon fiber absorbs sound waves, it can be a great material for dampening noise.



Design Flexibility

Because of its impeccable strength-to-weight ratio, carbon fiber is able to be used across a number of fields and applications. It can also be shaped and molded in ways that traditional materials, such as aluminum and steel, cannot.

