

Activity

Students will be able to:
- identify the different types of carbon fibers
- explain the properties of carbon fibers
- describe the applications of carbon fibers

Carbon Fiber (CF) and Kevlar (Aramid Fiber)

Carbon Fiber (CF)

Carbon fiber is a strong, lightweight material made from carbon atoms. It is used in a variety of applications, including aerospace, automotive, and sports equipment.

Kevlar (Aramid Fiber)

Kevlar is a synthetic fiber made from aromatic polyamide. It is known for its high strength and low weight, and is used in a variety of applications, including aerospace, automotive, and sports equipment.

Properties of Carbon Fiber and Kevlar

Property	Carbon Fiber	Kevlar	Carbon Fiber	Kevlar	Carbon Fiber	Kevlar	Carbon Fiber	Kevlar
Strength	High	High	High	High	High	High	High	High
Weight	Low	Low	Low	Low	Low	Low	Low	Low
Stiffness	High	High	High	High	High	High	High	High
Temperature Resistance	High	High	High	High	High	High	High	High
Chemical Resistance	High	High	High	High	High	High	High	High
UV Resistance	High	High	High	High	High	High	High	High
Electrical Conductivity	High	Low	High	Low	High	Low	High	Low
Thermal Conductivity	High	Low	High	Low	High	Low	High	Low
Biocompatibility	High	High	High	High	High	High	High	High
Cost	High	Low	High	Low	High	Low	High	Low