

# Recycling of Carbon Fiber-Reinforced Composites-A Review

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**Abstract:** *An important aspect of composite materials concerns the technologies of recycling carbon fibre-reinforced composites. Composite materials present an exciting combination of properties depending on the nature of the matrix and fibre. Such materials as carbon fibre-reinforced composites can replace a variety of materials, providing lighter constructions. The global recycled carbon fibre market is projected to reach 222 million \$ by 2026, at a compound annual growth rate (cagr) of 12%. However, the environmental impacts of composite materials at the components' end-service-life make the key challenge of increasing resource efficiency by turning waste into reusable materials. Conventional technologies for recycling carbon fibre-reinforced composites are quite complex and require expensive facilities.*

**Keywords:** composite materials; carbon fiber-reinforced composites; recycling techniques; chemical recycling; subcritical fluids; supercritical fluids; supercritical alcohols

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