IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 4, Issue 6, May 2024

A Review on Natural Fiber Composite Materials in Automotive Applications

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Abstract: Researchers from academia and business have lately been interested in natural fibers because of their accessibility, environmental friendliness, and biodegradability. After two decades of intensive study, natural plant-based fibers—including jute, sisal, banana, flax, hemp, coir, kenaf, and many more—are becoming more and more popular than synthetic fibers. Superior thermal and acoustic insulating properties, great fracture resistance, and exceptional strength and stiffness are all shown by natural fiber composite materials. In automotive applications, natural fiber reinforced composites may reduce material waste and component costs. Over the last ten years, European automakers have used more natural fiber composite materials in automotive applications because to the growing need for lighter, safer, and more fuel-efficient vehicles. This study explores the latest developments in the use of composite materials based on natural fibers in the automotive industry.

Keywords: Environmental Impact, Composite Manufacturing, Mechanical Properties

