IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 2, Issue 7, June 2022
Impact Factor: 6.252

Change in Composite Material Behaviour Under Thermal Loading: An Investigation

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Abstract: *Natural fibres are a new generation of reinforcements and supplements for polymer-based products that are made from renewable resources. Due to rising environmental concern, the development of natural fibre composite materials or ecologically friendly composites has become a popular topic recently. Natural fibres are a type of material that can be utilised to substitute synthetic materials and products in order to reduce weight and conserve the environment. Natural fibre reinforced polymer composites and natural-based resins are being widely used to replace conventional synthetic polymer or glass fibre reinforced materials. For its interior components, the automotive and aerospace industries have been actively creating various types of natural fibres, primarily hemp, flax, and sisal, as well as bio resins systems. Natural fibre composites are appealing for a variety of applications due to their high specific characteristics and affordable pricing. The goal of this research is to figure out how thermal loading affects natural fibre reinforced composites. This report is based on a study of composite behaviour at various temperatures.*

Keywords: Natural Fibers, Composites, Thermal Loading, Tensile Test, Bending Test, etc.

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