

Investigation of Mechanical Properties on natural fiber Reinforced Epoxy Composites

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Abstract : Natural fibres composites include coir, jute, bagasse, cotton, bamboo, and hemp. Natural fibers come from plants. These fibers contain lingo cellulose in nature. Natural fibers are eco-friendly; lightweight, strong, renewable, cheap, and biodegradable. The natural fibers can be used to reinforce both thermosetting and thermoplastic matrices. Thermosetting resins such as epoxy, polyester, polyurethane, and phenolic are commonly used composites requiring higher performance applications. They provide sufficient mechanical properties, in particular, stiffness and strength at acceptably low-price levels. Recent advances in natural fibers development are genetic engineering. The composites science offers significant opportunities for improved materials from renewable resources with enhanced support for global sustainability. Natural fibers composites are attractive to industry because of their low density and ecological advantages over conventional composites. These composites are gaining importance due to their non-carcinogenic and bio-degradable nature. Natural fibers composites are a very costeffective material, especially in building and construction, packaging, automobile and railway coach interiors, and storage devices. These composites are potential candidates for the replacement of high- cost glass fibers for low load bearing applications. Natural fibers have the advantages of low density, low cost, and biodegradability

Keywords : PMC, basalt, coir, carbon fibers

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