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Experimental Investigation on Mechanical Properties of Rice Husk Filled Jute Reinforced Composites

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Abstract : This paper describes the development of new class of epoxy based hybrid composites reinforced with jute and filled with rice husk flour. Rice husk flour is added in 0%, 1%, 3%, 5% by weight. Epoxy resin and triethylene tetramine (T.E.T.A) is used as matrix and hardener respectively. It investigates the mechanical properties of the composites and a comparison is done for monolithic jute composite and the filled ones. The specimens are prepared according to the ASTM standards and experimentation is carried out using INSTRON 8801. The result shows that with the increase of filler percentage the tensile properties increases but compressive and flexural properties decreases.

Keywords: jute, mechanical characterization, natural fiber, rice husk

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