Tougher Boats Made from Local Fiber

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Date palm fibres are considered as one of the most available natural fibre types worldwide. Large quantities of date palm biomass wastes are annually accumulated without proper utilization. These quantities are of potential interest to support the industrial sustainability by producing alternative cheap eco -friendly materials. The competitiveness of the date palm fibres in several applications particularly in automotive industrial sectors was illustrated. Date palm fibre can be considered the best regarding several evaluation criteria like specific strength to cost ratio if compared to other fibre types. The effects of using date palm fibres in natural fibre composites with different polymer matrices were demonstrated. Criteria that can affect the proper selection and evaluation of the natural fibres as well as the composites for applications were discussed. The benefit of natural fibres modifications on physical, mechanical, and other properties were also explored. Selecting the proper date palm fibre reinforcement condition can dramatically enhance its future expectations and widen its usage in different applications. Adopting the natural wastes and resources in finding alternative low-cost materials can enhance the industrial sustainability as well as reducing the environmental pollution. Bi- odegradability, low cost, low relative density, and the high specific c strength characteristics are the main added value steps of the natural fibre composites. Widening the application of such materials can contribute to the human living standards as well as the green environmental indices.

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