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Study of Hot Press Molding Method of Biodegradable Composite, Polypropylene Reinforced Coconut Coir

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Abstract : The use of biodegradable composite to solve ecological and environmental problems has currently risen as a trend. With the increasing use of biodegradable composite comes an increasing need to fabricate it properly. Yet this understanding has remained a challenge for the design engineer. Therefore, this study aims to explore how to combine coconut coir as a reinforcing material and polypropylene (PP) as a biodegradable polymer matrix. By using Hotpress Molding, two methods were developed and compared. The difference between these two methods is not only the step of fabrication but also the raw material. The first method involved a PP sheet and the second used PP pellets directly. Based on the results, it can be concluded that PP pellets yield better results, where the composite was produced in a shorter time, with an evenly distributed coconut coir and a smaller number of voids.

Keywords: biodegradable, coconut coir, hot press molding, polypropylene

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