



**POST IMPACT TENSILE FOR SHORT KENAF FIBRE WITH ALUMINUM**

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"I declare that this thesis is the result of my own work except the ideas and summaries which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree."

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## **ABSTRACT**

This project presents Kenaf as a new material for biocomposite industry. Kenaf has the promise to be the new miracle crop that contributes to green manufacturing. Recently, there were many applications such as composite can be produced by Kenaf. Basically, to produce the new type of composite, this project used short Kenaf fibre as the main material. Then it is mixed with polyester as the matrix. The ratio of polyester-hardener is 3:1. The composition of short Kenaf is 25% of 230 gram short kenaf. The producing process started when the mixture is poured into the mould and it is compacted until it perfectly fulfilled the mould. The mixture took about one to two hour to completely dry. The specimens then will be cut into standard dimension (ISO 9291) and it were laminated by aluminum sheet and woven. The tensile test will be implemented on both specimens after post impact test is finished. The post impact will be tested by post impact method by vary the energy of the impact test. The result of the tensile test of both specimens will be compared and discussed. Then the effect of the post impact test will be observed under the microscope.

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