UNIVERSITI TEKNOLOGI MARA

EFFECT OF HYBRID NATURAL FIBRE PINEAPPLE LEAF FIBER (PLAF) / CARBON BLACK FILLERS IN STYRENE BUTADIENE RUBBER (SBR) COMPOSITES ON CURE, PHYSICAL AND MECHANICAL PROPERTIES

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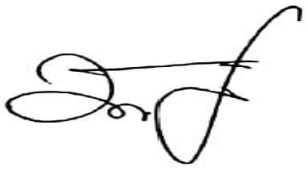
Final Year Project Report Submitted In Fulfillment of the Requirement for the Degree of Bachelor of Science (Hons.) Polymer Technology In the Faculty of Applied Science Universiti Teknologi Mara

DECLARATION

This Final Year Project Report entittled " **Effect Of Hybrid Natural Fibre Pineapple Leaf Fiber (PLAF) / Carbon Black Fillers In Styrene Butadiene Rubber (SBR) Composites On Cure, Physical And Mechanical Properties** " was submitted by Nabila Binti Abu Osman, in fullfillment of requirements for the Degree of Bachelor of Science (Hons.) Polymer Technology, in the Faculty of Applied Science and was approved by :



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ABSTRACT

The properties of PALF is produced from pineapple leaf were revealed. There is urgent need for innovation for give better understanding and give potential for development nowadays. This research aims to study the effect of hybrid natural fibre pineapple leaf fiber (PLAF) / carbon black fillers in styrene butadiene rubber (SBR) composites on cure, physical and mechanical properties. The pineapple leaf is studies at Unit Ladang that use in this project.The effect on different phr (5,10,15,20) for treated and untreated PALF were determined. All effect of PALF were significantly influenced by all testing (except tensile testing and swelling index). The results of the study also suggested that need strategies to successfully on this project. The lack of management data and not knowing the quality of pineapple leaf is becoming growing concern. It is hope that the study can contribute to improvement on physical and mechanical of properties in this project.

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