

# INVESTIGATION ON THE EFFECT OF KENAF DUST ON MECHANICAL PROPERTIES OF AUTOMOTIVE BRAKE PAD

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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 study focused on the investigation of the mechanical properties of automotive brake pad composed with Kenaf powder. The usage of Kenaf powder in automotive brake pad has not been developed yet compared to Kenaf powder composite which is now very popular in terms of the mechanical properties. Kenaf powder has lots of advantages in such a way where it is known as low density, high specific strength and modulus and wide availability. Additionally, in this study, specimens are composed with (4% and 20%) wt of Kenaf powder and (96% and 80%) wt of brake pad composition. To obtain the Kenaf powder, it needs to be sieved to have the wanted size. During the specimen's preparation, safety is very important especially while handling the hot press machine. All the specimens will undergo the hardness and impact test. The average result of hardness and impact will be compared to the commercial brake pad to see which will give higher or lower value. It is recommended to proceed with friction and wear test to investigate the tribological properties.

### **TABLE OF CONTENTS**

CONTENTS	PAGE
	•
ACKNOWLEDGEMENT	, <b>i</b>
ABSTRACT	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	viii
LIST OF FIGURES	x