

**Properties of Three Layer Particleboard
From Mahang Gajah (*Macaranga Gigantea*)**

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UNIVERSITI TEKNOLOGI MARA
KAMPUS PAHANG
APRIL 2006**

ACKNOWLEDGEMENT

Bismillahirrahmanirrahim,

In the name of Allah, The Most Gracious and The Most Merciful.

First of all, thank you to Allah s.w.t for giving us strength and patience to complete this final project successfully. I would like to express our sincere gratitude and thanks to Prof. Madya Dr. Jamaludin Bin Kasim as our advisor for the commitments and kindness. Also not forgetting the entire staff in Wood Industry for helping us when we are in problem.

Thank you to the staff of Department Wood Industry, Mr. Sardey, and Mr. Sharil Izane for helping me on preparing the materials that needed in our research.

Not to be forgotten our dearest parents who have been supported us throughout our learning period. Without them, we are nothing.

In the way to make final project, we are through all the sweet and difficult time together. That was an experience for us and also thanks to our friends for giving us the support to do this project and encouragement towards the completion of this study.

Finally, thank to other individuals who involved directly and indirectly with this project. We hope that this final project may contribute something to the Wood Industry, May Allah, The Most Merciful accept this humble effort in the name of truth, forgive our sins and may Allah bless this small valuable work. In truth the entire good thing comes from Allah S.W.T and the bad thing come from our feebleness. Thank you all.

TABLE OF CONTENT

APPROVAL SHEET	i
DEDICATION	ii
ACKNOWLEDGEMENT	iii
LIST OF FIGURE	iv
LIST OF PLATES	v
LIST OF TABLES	vi
LIST OF ABBREVIATION	vii
ABSTRACT	viii
ABSTRAK	ix

TABLE CONTENT

Page

CHAPTER ONE

1.0	Introduction	1
1.1	Justification	2
1.2	Objective	3

CHAPTER TWO

2.0	LITERATURE REVIEW	4
2.1	Mahang Gajah (<i>Macaranga Gigantea</i>)	4
2.1.1	Physical Properties of Mahang Gajah	5
2.1.2	Anatomical Properties of Mahang Gajah	5
2.1.3	Uses	6
2.2	Definition of Wood Composite	6
2.2.1	Particleboard History	6
2.2.2	Uses of Particleboard	9
2.3	Effect of % Wax Addition	10
2.4	Effect of Resin Content	10

CHAPTER THREE

3.0	MATERIALS AND METHODS	11
3.1	Methodology	11
3.2	Material Preparation	12
3.3	Manufacturing process	12
3.4	Method Testing	14
3.4.1	Bending	14
3.4.2	Internal Bonding	15
3.4.3	Thickness Swelling and Water Absorption	16

CHAPTER FOUR

4.0	RESULT AND DISCUSSION	18
4.1	Strength and Physical Properties of Particleboard	18
4.2	Effect of Particle sizes	19
4.2.1	The Modulus of Rupture (MOR)	19
4.2.2	The Modulus of Elasticity	20
4.2.3	The Internal Bonding	21
4.2.4	The Water Absorption	22
4.2.5	The Thickness and Swelling	23
4.2.6	Bulk Density	24

CHAPTER FIVE

5.0	CONCLUSION	25
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REFERENCES	25
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APPENDIX	27
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VITA	55
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ABSTRACT

At the first time we make this project three layers particleboard uses Mahang Gajah (*Macaranga Gigantea*). We are uses 1.0mm and 2.0mm particle sizes for core and 0.5mm for face and back. We are used 12% urea –formaldehyde. This blending, forming and by specific pressure and temperature. The strength properties will be defined by testing Modulus of Rupture (MOR), Modulus of Elasticity (MOE), Thickness Swelling (TS), Water Absorption (WA) and Internal Bonding (IB). From the result we obtained, different particle size will affect to the strength properties of three layers particleboard. it's not very suitable to make particleboard, it must be resolved for that species of wood can be use as new resource for manufacturing three layers particleboard.