

**EFFECT OF PARTICLE SIZE AND RESIN CONTENT ON
Leucaena leucocephala PARTICLEBOARD PROPERTIES**

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**Final Year Project Submitted in
Partiqal Fulfillment of the Requirements for the
Degree of Bachelor of Science (Hons.) Furniture Technology
In the Faculty of Applied Science
Universiti Teknologi MARA**

JUNE 2014

ACKNOWLEDGEMENTS

I was thank to Allah S.W.T., the most gracious and the most merciful, for the physical and mental health as well as the strength to complete this thesis and this report for the subject Thesis II to Dr Wan Mohd Nazri Wan Abdul Rahman, the lecture for this subject. I also want to give my special thanks to my advisor Professor Dr Jamaludin bin Kassim who contributed he knowledge, time, and guidance until I completed my thesis successfully.

Thank a lot also to other lecturers in Wood Industry department who is helped me either direct or indirectly. Not forget to all member AS227 6A. Together finish our project paper for the last semester.

My proudest gratitude goes out to my family, especially my mom because give their advice and always pray for my success..

Thank you so much.

TABLE OF CONTENTS

CONTENTS	PAGE
DEDICATIONS	
ACKNOWLEDGEMENTS	
TABLES OF CONTENTS	
LIST OF PLATE	
LIST OF FIGURE	
LIST OF ABBREVIATIONS	
ABSTRACT	
ABSTRAK	
CHAPTER ONE: INTRODUCTION	
1.1 General Background	1
1.2 Problem Statement	3
1.3 Objectives	4
CHAPTER TWO: LITERATURE REVIEW	
2.1 <i>Leuceana Leucocephala</i>	5
2.1.1 Properties of <i>Leuceana Leucocephala</i>	6
2.1.2 Characteristic of <i>Leucaena leucocephala</i>	7
2.1.3 Habitat description	8
2.2 Particleboard Overview	9
2.2.1 Particleboard history	10
2.2.2 Manufacture of particleboard	11
2.2.3 Adhesives used for making particleboard	12
2.2.4 Urea Formaldehyde	13
2.3 Effect of Particle Size	14
2.4 Effect of Resin Content	15

CHAPTER THREE: MATERIALS AND METHODS

3.1	Field procedures	16
3.2	Material preparation	17
3.2.1	Log cutting and debarking	17
3.2.2	Chipping	17
3.2.3	Flaking	18
3.2.4	Screening	19
3.2.5	Drying	19
3.2.6	Mixing and blending	20
3.2.7	Mat forming	21
3.2.8	Pre-pressed	21
3.2.9	Hot-press	21
3.2.10	Trimming	22
3.2.11	Testing	22
3.3	Flowchart of Manufacturing Particleboard	23
3.4	Particleboard Cutting For Testing	24
3.5	Experimental Design	26
3.6	Method of Testing	27
3.6.1	Internal bonding (IB)	28
3.6.2	Thickness swelling (TS)	30
3.6.3	Water absorption (WA)	31
3.6.4	MOR and MOE Testing	31

CHAPTER FOUR: RESULTS AND DISCUSSIONS

4.1	Mechanical and Physical Properties	35
4.2	Statistical Significance	37
4.3	Effect of Particle Size	38
4.3.1	Modulus of Rupture (MOR)	38
4.3.2	Modulus of Elasticity (MOE)	40
4.3.3	Internal Bonding (IB)	41
4.3.4	Thickness Swelling	42
4.3.5	Water Absorption	44
4.4	Effect of Resin Content	46
4.4.1	Modulus of Rupture (MOR)	46
4.4.2	Modulus of Elasticity (MOE)	47
4.4.3	Internal Bonding (IB)	49
4.4.4	Thickness Swelling	50
4.4.5	Water Absorption	52

ABSTRACT

This research was carried out to investigate the effect of particle size and resin content on mechanical and physical properties of particleboard from *Leucaena leucocephala* species. The *Leucaena* tree was harvested at UiTM Jengka forest. 24 boards were made from different particle size which is 1.0mm, 2.0mm, and 1.0mm + 2.0mm (mix). The resin content for three different types of particle size is 8%, 10%, and 12%. Urea formaldehyde (UF) was selected in this research. The press condition of board using UF resin was 180°C for duration of 6 minutes. The mechanical properties in static bending for modulus of rupture (MOR) and modulus of elasticity (MOE), tensile perpendicular to board were also determined after 24 hour water immersion. The results have indicated that the effect of particle size and resin content play important role in determining the mechanical and physical properties of particleboard.