

**PROPERTIES OF PARTICLE BOARD FROM BATAI AND PETAI
BELALANG**

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF PLATES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	x
ABSTRAK	xi
CHAPTER 1 INTRODUCTION	
1.1 Background	1
1.2 Problem statement	3
1.3 Objectives of Study	4
	4
CHAPTER 2 LITERATURE REVIEW	
2.1 Malaysia Particleboard Industry	5
2.1.1 Particleboard	6
2.1.2 Development of Particleboard	7
2.1.3 Properties of Particleboard	8
2.1.4 Effect of Resin Content in Particleboard	9
2.1.5 Uses of Particleboard	10
2.2 Particleboard Making Process	11
2.3 Raw Material	12
2.3.1 History of Batai (<i>Albezia falcataria</i>)	13
2.3.2 Physical and Density Properties	15
2.3.3 Properties of Batai	17
2.3.4 Distribution	17
2.3.5 Petai Belalang (<i>Leucaena leucocephala</i>)	18
CHAPTER 3 MATERIALS AND METHODS	
3.1 Material Preparation	20
3.2 Particleboard Manufacturing	21
3.2.1 Flaking	21
3.2.2 Screening	22
3.2.3 Drying	23
3.2.4 Blending	24
3.2.5 Mat Forming	25
3.2.6 Cold Press	25
3.2.7 Hot Press	26
3.2.8 Trimming	27

3.2.9 Sample Cutting According To Standard	28
3.3 Method of Testing	29
3.3.1 Flexure Strength	29
3.3.2 Internal Bonding Test	30
3.3.3 Thickness Swelling	31
3.3.4 Water Absorption	31
3.4 Experimental Design	33

CHAPTER 4 RESULT AND DISCUSSION

4.1 Bark Density	34
4.2 Mechanical and Physical Properties	35
4.3 Statistical Significance	36
4.4 Effect of Resin Content	37
4.4.1 Bending Properties	38
4.4.2 Internal Bonding	39
4.4.3 Thickness Swelling	40
4.5 Effect of Ratio	41
4.5.1 Bending Properties	41
4.5.2 Internal Bonding	42
4.5.3 Thickness Swelling	43
4.6 Effect of Year	44
4.6.1 Bending Properties	44
4.6.2 Internal Bonding	45
4.6.3 Thickness Swelling	46

CHAPTER 5 CONCLUSION AND RECOMMENDATIONS

CITED REFERENCES	49
APPENDICES	53
CURRICULUM VITAE	69

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AND PETAI BELALANG (*Leucaena leucocephala*)**

ABSTRACT

This study focus on alternative species to produce particleboard with the targeted density of 600kg/m^3 . Batai (*Albezia falcataria*) was mixed with Petai Belalang (*Leucaena leucocephala*). The main objectives of this study is to determine the particleboard made from admixture of Batai and Petai Belalang. The study was also done to evaluate the effect of particle ratio, resin content and tree's age on the particleboard properties. The particle ratio between species is 100A, 30L: 70A and 50A:50A. The tree's age of Batai using is 1.5 year and 5 year, while the percentage of resin content is 8%, 10% and 12%. The particle ratio between species is 100A, 30L: 70A and 50A:50A. The modulus of rupture, modulus of elasticity, internal bonding and thickness swelling of particleboard were determined according to British Standard Institution (IBS EN Standard). As conclusion, all the samples were fail to achieve the standard. This study had proven that mixture of species Batai and Petai Belalang is not suitable for particleboard manufacturing.