

PROPERTIES OF FINGER JOINT FROM THE ACACIA SPECIES,
SHOREA SPECIES AND VATICA SPECIES

MOHD ISMA ALIFF BIN MAT SANI

DIPLOMA IN WOOD INDUSTRY
UNIVERSITI TEKNOLOGI MARA

2007

ACKNOWLEDGEMENT

Alhamdulillah. First at all us very thankfully to Allah SWT the Al-Mighty in the world. Lastly, I successfully complete our final project on the given time.

Special thank to our advisor, Mr Ahmad Fauzi because of his kindly heart giving our advise, encouragement and assisting we have finish our project.

We also thanks a lot to Woodtech staff especially Mr. Sardey, Mr. Shahril, Pok Yie, Pok, Pak leh and others for their support and co operation in providing us the material and technical assistance during the jointing process until the testing.

At last but not least, to everybody who was involved indirectly in our thesis, especially our classmate and all of the Woodtech organization in the completion of this final project.

Thanks a lot.... My success is for you all....

TABLE OF CONTENTS

TITLE	PAGES
PROJECT TITLE	i
APPROVAL SHEET	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
LIST OF PLATES.....	ix
LIST OF ABBREVIATIONS.....	x
ABSTRACT	xi
ABSTRAK	xii

CHAPTER		PAGES
1	INTRODUCTION.....	1
	1.1 Background.....	1
	1.2 Justification	2
	1.3 Objective of Study.....	2
2	LITERATURE REVIEW.....	3
	2.1 Timber development industry in Malaysia.....	3
	2.1.1 Plywood industry.....	4
	2.1.2 Particleboard industry.....	5
	2.1.3 Medium Density Fiberboard (MDF) industry.....	5
	2.1.4 Veneered Panels Products industry.....	6
	2.1.5 Moldings' and BCJ industry.....	6
	2.1.6 Furniture and Fixtures industry.....	7
	2.2 Characteristic of the Acacia species.....	9-10
	2.3 Characteristic of the Shorea species (Meranti).....	10-11
	2.4 Characteristic of Vatica species (Resak).....	11-12
	2.5 Definition of finger joint.....	12
	2.6 Properties of finger joint.....	12
	2.7 The characteristic of Polyvinyl acetate (PVac).....	13-14
	2.8 Advantage of using Polyvinyl acetate (PVac).....	14
3	MATERIALS AND METHOD.....	
	3.1 Raw materials.....	15
	3.2 Step to make finger joint.....	16
	3.2.1 Get raw materials.....	17
	3.2.2 Cut the wood.....	17
	3.2.3 Drying process.....	17
	3.2.4 Finger jointing process.....	17
	3.2.5 Gluing process.....	18
	3.2.6 Clamping process.....	18
	3.2.7 Sizing process.....	18
4	RESULTS AND DISCUSSION.....	
	4.1 Properties of finger joint.....	19
	4.2 Statistically significant.....	20
	4.3 Effect of species on MOR.....	21
	4.4 Effect of species on MOE.....	22
5	CONCLUSION AND RECOMMENNDATION.....	
	5.1 Conclusion.....	23
	5.2 Recommendation.....	23
REFERENCES		24
APPENDICES		25-29
VITA		30

PROPERTIES OF FINGER JOINT FROM THE ACACIA SPECIES, SHOREA SPECIES AND VATICA SPECIES

MOHD ISMA ALIFF BIN MAT SANI

APRIL 2007

Abstract

In this study, three different of wood species is uses to determined the properties of finger joint for **Acacia spp, Shorea spp and Vatica spp**. All the species is coming from the UiTM Wood Industry Factory. To make finger joint, first step is get the raw material, secondly cut the wood into requirement sizes, after that dry the wood to get a requirements moisture contents. After this process, finger joint will be making. Finger joint will be glued and after this process, clamping process is followed. We use the manual clamping. Lastly, the finger joint is sanding to get a smooth surface. For the result, we found the **Vatica spp** properties are suitable to make finger joint.