

**PREFEBRICATED WOOD I-JOIST FROM LAMINETED VENEER LUMBER
(LVL) FLANGES AND PLYWOOD PERPENDICULAR WEB**

By

MD NAZRI SAMIN BIN MOHD SHARGAWI

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TABLE OF CONTENTS

	Page
APPROVAL SHEETS	i
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
ABSTRACT	viii
ABSTRAK	ix
CHAPTER	
I INTRODUCTION	1
1.1 Problem Statement.....	1
1.2 Objective.....	2
II LITERATURE REVIEW	3
2.1 I-Joist.....	4
2.2 The Use of I-Joist.....	5
2.3 Component of I-Joist.....	8
2.3.1 Laminated Veneer Lumber.....	9
2.3.2 Plywood.....	9
2.4 Advantages of I-Joist.....	11
2.5 Defect During Testing.....	11
2.6 Standard and Specification	12
III MATERIAL AND METHOD	14
3.1 Experimental Design.....	14
3.2 Cross Section of I-Joist.....	15
3.3 Preparation of I-Joist.....	16
3.3.1 Type of Jointed Wed.....	17
3.3.2 Flanges.....	18
3.3.3 Web.....	20
3.3.4 Type of Glue.....	22
3.4 I-Joist Fabrication	22
3.5 Failure During Testing.....	22
3.6 Destructive Testing of I-Joist Sample.....	24
3.7 Section Modulus (Z).....	26
3.8 Calculation of MOE and MOR.....	27

IV	RESULT AND DISCUSSION	29
	4.1 MOR, MOE and Maximum Load.....	30
	4.1.1 Modulus of Rupture.....	30
	4.1.2 Modulus of Elasticity.....	31
	4.1.3 Maximum Load.....	32
	4.2 Species of Flange (Discussion).....	33
	4.2.1 Modulus of Elasticity.....	33
	4.2.2 Modulus of Rupture.....	34
	4.3 Type of Joint.....	35
	4.3.1 Modulus of Elasticity.....	36
	4.3.2 Modulus of Rupture.....	37
V	CONCLUSION AND RECOMMENDATIONS	38
	5.1 Conclusion.....	38
	5.2 Recommendations.....	38
	REFERENCES	40
	APPENDIX	41
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I-Joist component is using the system that involve the using of flanges laminated veneer lumber (LVL) and web from plywood. Both components are combined and musk work together. The strength will be same with solid wood. The purpose of this testing is to test the strength of I-Joist that made from the combination between laminated veneer lumber as flanges and plywood perpendicular to grain with butt joint as web. the sample of I-Joist that have the highest modulus of rupture value was sample (S9) 26.4 MPa and the lowest modulus of rupture value was sample (S10) 15.2 MPa. Furthermore, the testing was to test the modulus of elasticity true. The result shows the highest value was sample (S10) with 8356 MPa and the lowest modulus of elasticity value was sample (S1) 7298 MPa. As the conclusion to this study, flange and web components act together and perform as a system of I-Joist.