

**STRENGTH PROPERTIES OF SANDWICH COMPOSITE MADE FROM  
PLYWOOD AS SKINS AND CORRUGATED PAPER BOARD AS CORE**

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## TABLE OF CONTENTS

	<b>Page</b>
<b>ACKNOWLEDGEMENTS</b>	iii
<b>TABLE OF CONTENTS</b>	iv
<b>LIST OF TABLES</b>	vi
<b>LIST OF FIGURES</b>	vii
<b>LIST OF PLATES</b>	viii
<b>LIST OF ABBREVIATIONS</b>	ix
<b>ABSTRACT</b>	x
<b>ABSTRAK</b>	xi
<b>CHAPTER 1 INTRODUCTION</b>	
1.1 Background of study	1
1.2 Research problems	2
1.3 Significance of study	3
1.4 Objectives of study	5
<b>CHAPTER 2 LITERATURE REVIEW</b>	
2.1 Sandwich Panel	6
2.1.1 Introduction	6
2.1.2 Advantages of the sandwich panel	7
2.1.3 Applications of sandwich panel	8
2.2 Plywood	9
2.3 Corrugated Paper Board	10
2.3.1 Introduction	10
2.3.2 Advantages of corrugated paper board	12
2.4 Polyvinyl Acetate	13
2.5 Mechanical Properties	14
2.5.1 Static Bending	14
2.5.2 Compression	15
<b>CHAPTER 3 MATERIALS AND METHODS</b>	
3.1 Field procedure	16
3.2 Material Preparation	16
3.2.1 Corrugated paper board	16
3.2.2 Plywood	17
3.2.3 Adhesive	17

3.3	Sandwich panel manufacturing	17
3.3.1	Preparation of Corrugated paper board core	18
3.3.2	Preparation of plywood skin	19
3.3.3	Assembly and gluing of the skin and the core	20
3.3.4	Curing and drying of the board	20
3.3.5	Trimming of the sandwich panel	21
3.3.6	Cutting the board to sample size	21
3.3.7	Conditioning	22
3.4	Sandwich panel board evaluation	22
3.4.1	Method of testing	22
3.4.2	Test specimens	23
3.5	Experimental design	24
3.6	Statistical analysis	25

#### **CHAPTER 4 RESULTS AND DISCUSSIONS**

4.1	Strength properties of sandwich panel	26
4.2	Statistical significance	27
4.3	Statistical analysis for bending test	28
4.3.1	Effect of the arrangement type on bending strength properties	28
4.3.2	Effect of number of layer on bending strength	31
4.4	Statistical analysis for flatwise compressive strength	
4.4.1	Effect of the arrangement type on flatwise compressive strength	33
4.4.2	Effect of number of layer on flatwise compressive test	34

#### **CHAPTER 5 CONCLUSION AND RECOMMENDATIONS**

5.1	Conclusion	36
5.2	Recommendations	37

<b>REFERENCES</b>	39
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<b>APPENDICES</b>	42
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<b>CURRICULUM VITAE</b>	53
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## ABSTRACT

The sandwich composite made from plywood as skins and corrugated paper board core were manufactured with different types of arrangement (vertical and horizontal) and different number of layer (single and double) by using the application of Polyvinyl Acetate (PVAc) resin. The objective of this study was to determine the strength properties of the sandwich panel by determining the (MOR, MOE and maximum compressive strength). The values of the (MOR, MOE and maximum compressive strength) were evaluated according to ASTM standard (ASTM C 393, ASTM C365). Based on the testing conducted the horizontal arrangement of corrugated core has highest MOR and MOE value. For the number of layer of corrugated core it was showed that the double layer gave higher MOR and MOE value. For the flatwise compressive strength it was stated that, the vertical of arrangement had higher maximum bending load while for the number layer it was indicates that the single layer can resist with higher maximum load moment. The bending strength properties (MOR and MOE) of the corrugated paper board were low, this materials does not fulfil the minimum requirements in most of furniture applications.