ANALYZING THE EFFECTIVENESS OF CONSUMPTION ON ULTRA VIOLET (UV) COATING COMPARE SPRAY COATING SYSTEM IN FURNITURE INDUSTRY

By

MUHAMAD NIZAM BIN HAJI MORAD

Final Project Submitted in Partial Fulfillment For The Diploma in Wood Industry

Faculty Applied Science,

Universiti Teknologi Mara, Pahang.

March 2004

ACKNOWLEDGEMENT

Assalamualaikum Warahmatullahi Wabarakatuh.....

Firstly, I would like to take opportunity to shows my thankfulness towards Allah S.W.T for rendering upon me such as tremendous moments with determination and courage the period of time leading to the completion of this project.

Beside that, I am pleased to express my great appreciation to my project advisor's Miss Nurhafizah Binti Rosman and my tutorial lecturer for the final project, Prof. Madya Abd Jalil due to the encouragement on the advices, comments and suggestion, which had expanded the valuable information during the preparation of this project.

Beside that, I'm also wish thank to the Al-Bukhari Library, UiTM Pahang because give many facilities to me and all students to find out information and borrowed book for the long period.

And lastly, sincere gratitude to my beloved family and my friends who give me the encouragement to keep up with the study and encourage me leading towards the success of this final project. Once again, I want to wish thank you very much to all people who involve in this project.

TABLE OF CONTENT

Page

APPROVAL SHEET	i
DEDICATION	ii
ACKNOWLEDGEMENT	iii
TABLE OF CONTENT	iv
LIST OF TABLES	vi
LIST OF FIGURES	
LIST OF ABREVIATIONS	viii
ABSTRACT	ix
ABSTRAK	x

CHAPTER

1	INTRODUCTION	
	1.1 Introduction	1
	1.2 Objectives	2
	1.3 Justification	3
2	LITERATURE REVIEW	
	2.1 Spray Coating	4
	2.1.1 Spray Coating Method	5
	2.1.2 Material in Spray Coating	8
	2.1.3 Equipments Used in Spray Coating	11
	2.1.4 Cost of Finishing Treatment	20
	2.2 Ultraviolet (UV) Coating	23
	2.2.1 Method of UV Coating	24
	2.2.2 UV Coating Material	27
	2.2.3 UV Coating Equipments	28
3	RESULT AND DISCUSSION	
	3.1 Workmanship	32
	3.2 Coast of Material	33
	3.3 Equipments and Premises Application	34
	3.4 Curing Space	36
	3.5 Operating Costs Power and Water	37
	3.6 Environmental Purification of Water	38
	Removal of Waste	
	3.7 Maintenance Insurance Personal Protection	39

CONCLUSION	40
RECOMMENDATION	40
REFERENCES	41
APPENDIXES	43
VITA	51

4

.

ANALYZING THE EFFECTIVENESS OF CONSUMPTION ON ULTRA VIOLET (UV) COATING COMPARE SPRAY COATING SYSTEM IN FURNITURE INDUSTRY

By,

Muhamad Nizam Bin Haji Morad March 2004

ABSTRACT

Finishing process is the last process in the layout to produce any products. Finishing is important to protect the product for long-term period and also give ascetic value. Nowadays, the technique user is spray and UV coating. This project will be study about analyzing the effectiveness of consumption for both systems and determine which technique is better to use in the country. The analyzing involve for the operation cost, workers cost, quality of product produce by the system, waste from the system and other factors. From the result, the better technique is UV coating because the quality of product by using that system is better and no waste for materials. Although the operation cost is expensive compare spray system but it did not use many workers and the system did not use big place to cure the product because it can cure the product in 10 seconds on the conveyor. Spray technique is less effectiveness in the finishing process compare UV coating technique because it need to use many workers and also need large area to cure the product for long time compare UV coating technique.

ix