

**THE IMPORTANCE OF SANDING IN WOOD FINISHING PROCESSES**

**BY**

**MOHD AZHARI ABD AZIZ**

**Final Project Paper Submitted in Partial Fulfillment for the Diploma in Wood Industry,  
Faculty of Applied Science, Universiti Teknologi MARA**

**April 2007**

## TABLE OF CONTENTS

	<b>PAGE</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>iv</b>
<b>DEGNIFITION OF MANKIND.....</b>	<b>v</b>
<b>LIST OF FIGURES.....</b>	<b>vi</b>
<b>LIST OF TABLE.....</b>	<b>vii</b>
<b>LIST OF PLATE.....</b>	<b>viii</b>
<b>ABSTRACT.....</b>	<b>ix</b>
<b>ABSTRAK.....</b>	<b>x</b>
<b>CHAPTER</b>	
<b>1 INTRODUCTION.....</b>	<b>1</b>
<b>2 ABRASIVE.....</b>	<b>2-3</b>
<b>2.1 ABRASIVE MATERIAL.....</b>	<b>4</b>
<b>2.2 TYPES OF ABRASIVE MATERIAL</b>	
2.2.1 Flint.....	<b>5</b>
2.2.2 Garnet.....	<b>6</b>
2.2.4 Aluminum Oxide.....	<b>6</b>
2.2.4 Silicon Carbide.....	<b>6</b>
<b>2.3 ABRASIVE GRADES</b>	
2.3.1 Grades.....	<b>7</b>

<b>3</b>	<b>IMPORTANT OF SANDING</b>	
	3.1.1 Value Added.....	<b>8</b>
	3.1.2 Quality Surface and Control.....	<b>9</b>
	3.1.3 Reduce Labor.....	<b>9</b>
	<b>3.2 SANDING MACHINES</b>	
	3.2.1 Stationary Sanders.....	<b>10-14</b>
	3.2.2 Portable Sanders.....	<b>15-17</b>
	<b>3.3 SANDING TECHNIQUES</b>	
	3.3.1 Selecting Sanding Tools.....	<b>18-21</b>
	3.3.2 Selecting Abrasive.....	<b>22-24</b>
	<b>3.4 SANDING PROCEDURES</b>	
	3.4.1 Stationary Sanders.....	<b>35-28</b>
	3.4.2 Portable Sanders.....	<b>29</b>
	<b>3.5 SANDING SAFETY.....</b>	<b>30-33</b>
	<b>3.6 SANDING MAINTENANCES.....</b>	
	3.6.1 Cleaning.....	<b>34</b>
	3.6.2 Lubrication.....	<b>35</b>
	3.6.3 Changing Abrasives.....	<b>35</b>
<b>4</b>	<b>CONCLUSION.....</b>	<b>36</b>
	<b>REFERENCES.....</b>	<b>37</b>
	<b>VITA.....</b>	<b>38</b>

## ACKNOWLEDGEMENT

Firstly and always, I would like to thank for our god, Allah S.W.T with blessing and there are conveniences give me to complete this final project or thesis for this semester although at starting have many problem and test to complete this project. Beside of that, I also thank a lot to my advisor, Madam Norhafizah Rosman because of full supported during my study and processing on doing that my thesis "The Importance of Sanding in Wood Finishing processes. She also gives me a lot of suggestion in choosing the topics of this thesis or the right items on this thesis because I have a little problem in choosing the right topic in early of my study. Then, thanks again to my lecturer Profesor Madya Dr. Jamaludin Kasim who had teach this subject and give the valuable signature as lecturer of Diploma in Wood Industry student since the starting class at 8<sup>th</sup> January 2007. In addition, I also like to thanks our friend such as Hafizul, Alif, Sofeyana and Azuin who had given the supported and some advice me together in discussion about the project and against of all my friend batch June 2004 until July 2007 because of their cooperation during my presentation time. Lastly, thank a lot to all my family members, my lovely mum and dad, my brothers and my sisters because of their fully supported and advised during my study in University Technology MARA, Pahang Branch. I will hope Allah S.W.T forgiveness my sins and our friend and give the way straight of life and against hoping of the study can improve my knowledge's about what I had studied in Uitm especially and in Wood Industry in future time.

## **Abstract**

# **FURNITURE SANDING: EFFECT ON SURFACE AND QUALITY IN WOOD FINISHING PRODUCT**

By

**MOHD AZHARI ABD AZIZ**

APRIL 2007

Wood sanding is a first thing that needs to do after the final process to make wood or product. There are the thing that should to do before using the final material of furniture product such as fillers, stains, lacquer and other. The sanding materials are form by mineral substances that process by sand combined with special paper which usually use for wood sanding process. It usually involve the types of abrasive, the right of using grits, ability to handling using the machines and the tools of safety that need to use. All above can be imagine that to get the good quality of surface need to suitable items or material and good skills to increase the quality and value of wood product. Concentration and careful need while manufacturing process can reduce the damage at wood surface. The suitable of sanding operation and develop procedures can increase quality of surface finish. Although, the product can't be produce if someone not wear the safety tools perfectly and rightly. The risk to get the injuries and seriously diseases are highest. Lastly, the suitable of sanding will be increase the excellent or produce the great of product and decrease the holding of handing abrasive tools which to get the risk to injury is highest and produce the product needs more time.