

DEINKING PROCESS  
OF  
SECONDARY FIBER

By

MASWARNI BINTI MOHD ALI

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

October 2004

## TABLE OF CONTENTS

	<b>Pages</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>v</b>
<b>LIST OF TABLE.....</b>	<b>vi</b>
<b>LIST OF FIGURES.....</b>	<b>vii</b>
<b>ABSTRACT.....</b>	<b>viii</b>
<b>ABSTRAK.....</b>	<b>ix</b>
 <b>CHAPTER</b>	
<b>I INTRODUCTION</b>	<b>1</b>
1.1 Justification	2
1.2 Objectives	3
 <b>II LITERATURE REVIEW</b>	 <b>4</b>
2.1 Secondary Fiber	5
2.2 Contaminants	6-7
2.3 Deinking Process in General	8-10
2.4 Deinking Chemicals	11-16

<b>III</b>	<b>EFFICIENCY OF DEINKING PROCESS</b>	17
3.1	Factor that Influences the Efficiency of Deinking Process	17
3.1.1	Types of Binder	17
3.1.2	Ink Particle Sizes	18-19
3.1.3	Contaminant Types	20-21
<b>IV</b>	<b>PROPERTIES OF DEINKING PULP</b>	22
4.1	Physical Properties of Deinking Pulp	22-29
4.2	Optical Properties of Deinking Pulp	30-31
<b>V</b>	<b>CONCLUSIONS</b>	32

## **BIBLIOGRAPHY**

## ACKNOWLEDGEMENT

BISMILLAHIRRAHMANIRRAHIM.

Alhamdulillah, with high gratitude to Almighty Allah S.W.T. By his permission given, I can complete my final project paper for WTE 375 with successfully.

First of all, I would like to express my deepest appreciation sincere and thanks to my advisor, Mr. Amran bin Shafie for all of his help in giving such information and references, encouragement and guidance in designing and implementing this project paper. Sincere thanks also to my lecturer who conduct the classes for this subject WTE 375, Prof. Madya Abdul Jalil bin Ahmad for all his attention and concern to guide us in making a good project paper. Not forgotten also to other Wood Industry lecturer for their help and an encouragement.

Thanks and special appreciation also to my parents for their moral and financial support throughout the years study. To my beloved friends, millions of thank you for the support and help me in doing this final project paper.

Last but not least, thank you to all of you once again and hopefully **May Allah Bless you all** in whatever you do and you are. THANK YOU.

**DEINKING PROCESS**  
**OF**  
**SECONDARY PROCESS**  
**BY**  
**MASWARNI BINTI MOHD ALI**

**October 2004**

**ABSTRACT**

This review was done to identify the factor that influence the efficiency of deinking process and properties of deinking pulp compared to the virgin pulp. The great advances in printing, coating and modification of paper by converters to impart special properties make difficulty of deinking process. Commonly, deinking pulp properties has low ability of interfiber bonding compared to virgin pulp. As a result the properties that most related to interfiber decrease while properties which are a sense are inversely related to bonding increase. Despite, optical properties, brightness and opacity for deinking pulp is much better than the virgin pulp.