PROPERTIES OF PAPER FROM OIL PALM FRONDS (OPF) BY USING KRAFT PULPING PROCESS

NORADILA BINTI BUANG

SURAYA BINTI MOHD YUSOF

NOR AFIFAH BINTI ABDULLAH

Final Year Project Report Submitted in

Partial Fulfillment of the Requirements for the

Diploma of Wood Industry

in the Faculty Of Applied Science

Universiti Teknologi MARA

2012

ACKNOWLEDGMENT

First of all we want to pray of our graceful to Allah because of His permission we can do this semester final projects successfully. Says about this final project, we wants to thanks to the person that involved directly or indirectly that have been helping us in this project process especially to our beloved advisor Sir Amran bin Shafei, whose willingness to contribute his knowledge, time and effort till we can finish this final project.

We also want to thanks to the staff of wood technology workshop that is Sir Rudaini bin Mohamad Nawawi because assist us along the time we do this final project. Besides that, we also want to thanks to the Prof Madya Haji Abdul Jalil bin Ahmad because of the guiding on how to do our final project.

Also we want to thanks to the groups that doing the same project with us because always help us in way when my group have problems when doing this project. Thanks for the patience of waiting until late evening to make sure our work together can be finish.

And the last but not least, we want to convey my special gratitude to our beloved parents and family who give us strength to keep up with the study and encourage us in the process succeeding this project.

Thanks a lot to you all because without this entire people, we cannot do this final project and cannot finish this report successfully. For all the kindness that all of you given to us, we really appreciate that forever and we are so happy that

TABLE OF CONTENTS

PROPERTIES OF PAPER FROM OIL PALM FRONDS (OPF) BY USING KRAFT PULPING PROCESS

BY

NORADILA BINTI BUANG

SURAYA BINTI MOHD YUSOF

NOR AFIFAH BINTI ABDULLAH

FEBRUARY 2012

ABSTRACT

This research was done by using oil palm fronds (*Elaeis guineensis*) to study the strength properties of paper and the suitability of using oil palm frond fiber. The method that had to be used to produce paper is by using kraft pulping process with different revolution of beating that are 0 beating, 1000 beating, 2000 beating. The paper structure, physical and mechanical like tensile strength, tearing strength, and bursting strength will be tested. From the different of beating revolution, 1000 of beating revolution produced the higher strength of paper because at this level the fibre have reach it optimum point of length. From here, we can indicate that by using different level of beating revolution, it will produce the different level of paper strength