

**PROPERTIES OF HOMOGENOUS AND THREE-LAYER  
PARTICLEBOARD FROM KETAPANG AND OIL PALM  
PARTICLES**

**BY**

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

**November 2005**

## ACKNOWLEDGEMENT

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

Alhamdulillah, the very grateful praise to the merciful Allah S.W.T. for His Blessing and Strength, then we can only manage to finish this final paper project successfully.

First of all, we like to give a very big thanks to our beloved parents, for their pray and blessing, also for their support and advices. Not to forget, our advisor, Dr Jamaludin Bin Kasim or “ayah” for his cooperation in giving us guidance and advices that had a lot in helping us to finish this final paper project. We are so thankful to him because of the very kindness of him to be our advisor.

Besides, we also want to thank to our group members, Sri Normaysarah Abdul Rani, Siti Aidaliza Binti Subardi and Noorfazurah Binti Mohamad because of their very good commitment and support. Also not to forget, Associate Prof. Abdul Jalil, Mr. Ahmad Fauzi Bin Othman, Tuan Sheikh Abdul Karim Yamani, Mr Sardey Bin Idris and Mr Mohd Sharil Izani Bin Abdullah because of their cooperation and advices, also the guidance in using the testing machine and others that involving the process of particleboard making.

Lastly, thanks to our beloved friend, and all my kindness friends for their support and cooperation to complete this final paper project. May Allah S.W.T. bless all of them that have influence us in finishing this final paper project.

واسلام

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## **ABSTRACT**

### **PROPERTIES OF HOMOGENOUS AND THREE-LAYER PARTICLEBOARD FROM KETAPANG AND OIL PALM PARTICLES**

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**NOVEMBER 2005**

In this study, research done to determine the suitability or strength properties of Ketapang and oil palm particleboard. This research was divided by three part. First part is properties of homogenous particleboard, second part is three-layer particleboard and third part is properties of particleboard from admixture of oil palm and ketapang particles. For the first part, three percentages of Urea Formaldehyde (UF) resin that are 7%, 9% and 11% used for making particleboard. For the second part, for the surface we used 12% of UF while for core, we used 10% of UF with added 1% of wax. While for the third part, we mixed oil palm and Ketapang particles with the ratio (50:50) using 11% of UF. The target density is 650 kgm<sup>3</sup>. Several types of test are done to determine the strengths properties of its. They are “Modulus of Rupture” (MOR), “Modulus of Elasticity” (MOE), “Water Absorption” (WA) and “Thickness Swelling” (TS). Results obtained shows that Ketapang and oil palm are not suit to the standard to be as new sources in particleboard manufacturing.