

PROPERTIES OF PARTICLEBOARD FROM *Leuceana leucocephala* WOOD

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**Final Year Project Paper Submitted in
Partial Fulfillment of the Requirement for
Bachelor of Sciences (Hons.) Furniture Technology
Faculty of Applied Sciences,
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JULY 2015

ACKNOWLEDGEMENT

السلام عليكم ورحمة الله وبركاته

Alhamdulillah, all praises to Allah for His Merciful and Blessing this final project paper able and has been completed in the proper period and time project about "Properties of Particleboard from *Leuceana laucephala* Wood". It not easy to complete this thesis, but with permission from Allah S.W.T and guidance from all people, this thesis is finally completed.

Special thanks to my advisor, Dr. Shaikh Abdul Karim Yamani bin Zakaria for all his though and guidance. He never failed to give guide and support to me and has been with me since from my early stage of project. Without guidance from him, it could not possible to finish this project. A lot appreciate goes to Assc. Prof. Dr. Wan Mohd Nazri bin Wan Abd Rahman as tutorial lecturer that had guiding me in writing this final year project. Also thank to Mr. Tajuddin, Mr, Shahril Izani and others staff's wood industry for kindness in helping me in difficulties regarding the technical problem. Here also, I would like to thank Assc. Prof. Dr. Wan Mohd Nazri bin Wan Abd Rahman on behalf of Mico Sdn. Bhd. Who was willing supply the synthetic adhesive that is urea formaldehyde (UF) and Wax PA 60 to be used in this final year project.

My special deep appreciation goes to my beloved mother and to my beloved sibling. Siti Kharijah binti Mohd Luddin for her pray, love, support, encouragement and advices. Thanks also for my members in AS247 6A and post-graduate students for the helping, sharing, kindness and experience in accomplishing this thesis. All your kindness will always never be forgotten for the whole of my life.

Thank You.

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ABSTRACT

Properties of Particleboard from *Leuceana leucocephala* Wood

Particleboard was produced from *Leuceana leucocephala* wood using difference resin content (8%, 10% and 12%) and with added 1% wax. The particleboard was assessed for the mechanical properties including modulus of rupture (MOR), modulus of elasticity (MOE), internal bonding (IB) and also physical properties including thickness swelling (TS) in accordance with the British Standard non-load bearing 312:2003. Mechanical properties revealed that board with higher resin content, 12% shows the highest value of MOR (16.82 MPa), MOE (2181 MPa) and IB (0.96 MPa). While, physical properties, board with 10% of resin content has the best TS1 (16.34%), TS8 (18.55%) and TS24 (21.94). Mechanical properties revealed that board with 1% of wax, shows the highest value of MOR, MOE and IB, but not significantly compare without wax and had the best TS1, TS8 and TS24 for physical properties and significant compare without wax. Hence, particleboard from *Leuceana leucocephala* with highest resin content has a potential as an alternative raw material to produce particleboard and other panel product for furniture industry.