

**MECHANICAL, PHYSICAL AND WORKING PROPERTIES OF
PARTICLEBOARD MADE FROM TROPICAL WOOD WASTES**

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**This Final Year Project Report Submitted in Partial Fulfillment of the
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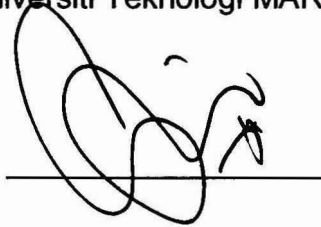
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ABSTRACT

MECHANICAL, PHYSICAL AND WORKING PROPERTIES OF PARTICLEBOARD FROM TROPICAL WOOD WASTES

Particleboard made from tropical wood wastes bonded with 12% urea formaldehyde added with hardener (Ammonium Chloride). The study carried out about the boards that fabricated with three different particle sizes (<1mm), (>1mm) and mixture from below and upper than 1mm. The boards produced was evaluated for its bending properties, internal bonding (IB), water absorption (WA), thickness swelling (TS) and screw withdrawal (SW) in according with Malaysian Standards. The screw withdrawal testing was made on two orientation of the board which is the surface and the edge. The study revealed that the mixed particle size shows the best bending strength, TS and WS. The board with particle size (<1mm) shows the highest internal bonding (IB). (>1mm) board gives high screw withdrawal strength rather than (<1mm) and mixed particle size.

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