

**PROPERTIES OF PLYWOOD FROM RUBBERWOOD, *EUCALYPTUS*
PELLITA AND MIX TROPICAL SPECIES**


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CANDIDATE'S DECLARATION

I hereby declare that the thesis entitled "**PROPERTIES OF PLYWOOD FROM RUBBERWOOD, *EUCALYPTUS PELLITA* AND MIX TROPICAL SPECIES**" submitted by Nik Muhamad Hazim Bin Nik Mohd Adib to University Technology Mara Pahang (UiTM) final year project to fulfilment of the requirement for the award the Bachelor of Science (Hons.) Furniture Technology in the Faculty OF Applied Sciences. A record of research work carried out by me under the guidance of my advisor Associate Prof Dr. Wan Mohd Nazri Bin Wan Abdul Rahman and advice from my advisor and course coordinator Associate Prof Said Bin Ahmad. I further declare that the work reported in this thesis is submitted to the university.

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PROPERTIES OF PLYWOOD FROM RUBBERWOOD, *EUCALYPTUS PELLITA* AND MIX TROPICAL WOOD

ABSTRACT

Plywood is from wood based product is a composed of three or more thin layer of wood that are glue together one or more veneers from parallel and perpendicular for both side of a veneer and united under high temperature and pressure. The shortage of wood as a raw material has recently to great concern. Therefore we must find wood based industries new raw material give alternative sources of local raw material and the plantation with fast growing such as rubberwood and *Eucalyptus* tree currently appears to be alternative substitute for plywood industry. The rubberwood and *Eucalyptus* is a fast growing plant and can be often use at a considerable cost between mix tropical wood. The cost of rubberwood and eucalyptus is only about half or little from tropical wood the price used for structural purpose. This study investigated the plywood on the mechanical properties of different plywood using different species at the plywood. The measured mechanical properties include panel shear, modulus of rupture (MOR), modulus of elasticity (MOE) and bonding shear at face, middle and back. The plywood made from *Eucalyptus* give a lower quality compare than mix tropical and rubberwood. This happen due to the density of eucalyptus is lower than compare with rubberwood and mix tropical wood. The results indicated the density lower give the properties of plywood from *Eucalyptus* is decrease. For plywood from rubberwood is almost the same result with the plywood mix tropical, it happen because the density of rubberwood is nearly same the density of mix tropical wood. Rubberwood can be considered as appropriate material for plywood manufacturing.

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