PROPERTIES OF LAMINATED VENEER LUMBER (LVL) FROM KELEMPAYAN (*Neolamarckia cadamba*) AND RUBBERWOOD (*Hevea brasiliensis*) USING DIFFERENT VENEER COMBINATION AND TEMPERATURE

NURAQILA SHAFIQAH BT MD NASIR

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ABSTRACT

PROPERTIES OF LAMINATED VENEER LUMBER (LVL) FROM KELEMPAYAN (*Neolamarckia cadamba*) AND RUBBERWOOD (*Hevea brasiliensis*) USING DIFFERENT VENEER COMBINATION AND TEMPERATURE

In this study, the influence of veneer combination and temperature of hot-pressing machine on bending property and delamination of laminated veneer lumber (LVL) is determined. The LVL were made from new Kelempayan, degraded Kelempayan and mixed degraded Kelempayan with rubberwood. The other variable is temperature of hot-pressing machine which are 100°C, 120°C and 140°C. Other parameters such as type of adhesive used (phenol formaldehyde) and pressing pressure (20 kgf/cm^2) were held constant. The LVL made were tested for the bending property and delamination according to Japanese Agriculture Standard (JAS). Overall results showed that LVL made from new Kelempayan exceed the JAS for modulus of rupture (MOR), modulus of elasticity (MOE), and delamination. Meanwhile, temperature of hot-pressing does not show any significant effect on bending property and delamination. Boards made from new Kelempayan are better than degraded Kelempayan although it is mixed with rubberwood. In conclusion, Kelempayan is a great alternative of raw material for LVL production.