

## **Evaluation on the suitability of some adhesives for laminated veneer lumber from oil palm trunks**

### **Abstract**

Laminated veneer lumbers from oil palm trunk were manufactured using urea formaldehyde, phenol formaldehyde, melamine urea formaldehyde, and phenol resorcinol formaldehyde adhesives. The density of the oil palm laminated veneer lumber was slightly higher than the solid oil palm trunk. The thickness swelling and water absorption of laminated veneer lumber of oil palm were higher than those made from rubberwood. Laminated veneer lumber bonded with phenol resorcinol formaldehyde showed higher shear strength compared to other adhesives. The contact angle on the loose surface was lower than on the tight surface. Phenol formaldehyde adhesive has a higher contact angle compared to the other adhesives. © 2009 Elsevier Ltd. All rights reserved.