**Adhesive Characteristics on Oriented Strand Board (OSB) Made From Andong Bamboo Through Steam Treatment on Strand**

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*Abstract:* Oriented strand board (OSB) is a structural panel product which can be manufactured from lignocellulose materials, such as wood and bamboo. The objectives of this research was to determine adhesive characteristic of OSB made from andong bamboo (*Gigantochloa verticillata* (Willd.) Munro) was shelling ratio face and core of strand as well steaming treatments on strands. The strands were steamed at 126 °C for one hour in 1.4 kg cm-2 pressure before blended with adhesive agent. Commercial phenol formaldehyde (PF) resin has been used in 8% composition based on the oven dry weight of strand. Three layered OSBs with the core layer orientation parallel to the face layer were produced. The shelling ratio for face and core layer were 50:50, 55:45, 60:40, 65:35, 70:30, 75:25 based on the oven dry weight on percent. The testing were conducted to determine internal bond (IB), stress wave velocity (SWV), dynamic board elasticity (MOEd), and formaldehyde emission based on the Japanese standard. The result shows that the higher of shelling ratio face-core on OSB with steaming treatment on strands produce the best OSB product in term of of IB, SWV as well as MOEd, and quality of formaldehyde emission. Steam treatment has been significantly decreasing formaldehyde emission of the composite board, thus the product could reach formaldehyde emission level of F\*\*\* and F\*\*\*\* classes on the JIS standard.

*Keywords:* *Steam, shelling ratio face-core, OSB, stress wave velocity, formaldehyde emission.*