

**Performance of Cement bonded particleboard (CBPB) from Petai Belalang at Three  
Difference Wood Cement Ratio**

**by**

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**ABSTRACT**

Cement bonded particleboard (CBP) from Petai Belalang (*Leuceana leucocephala*) trees was examined and manufactured for their suitability as a construction material under laboratory conditions. For this study, Petai Belalang (*Leuceana leucocephala*) at the age eight and sixteen years old were used to produce at 1:2.0, 1:2.5 and 1:3.0 of wood cement ratio have been produced and their mechanical and physical properties were evaluated and the Malaysian Standard is used as standard requirement. The treatments on the particles during mixing process used were aluminium sulphate and sodium silicate as catalyst. The earlier results show that 1:2.0 wood cement ratio are potential to pass the minimum standard requirement for modulus of rupture (MOR), modulus of elastic (MOE), internal bonding (IB), thickness swelling (TS) and water absorption meet and pass the requirement of the Malaysia Standard (MS 544:2001).