

# **A RESEARCH ON APPLICATION OF WOOD WOOL CEMENT CONSTRUCTION BOARD IN CIVIL ENGINEERING CONSTRUCTION**

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## **ABSTRACT**

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There is a chronic shortage of housing in parts of Southeast Asia, especially to countries that have problems with extensively weather change such as destructive typhoons, flooding, earthquakes and volcanic eruptions that can destroy a significant proportion of the housing stock. Therefore the demand of fast build up and low cost houses are very high. Imported materials and engineered composite panels familiar to building systems in Western countries are costly and not tolerate tropical climate conditions, make them unsuitable for low-cost housing projects in there. To overcome this problem, Wood Wool Cement Board (WWCB) is introduced in building construction.

WWCB has already place in today's construction industry. It start and widely use in European country, and in Southeast Asia, it progressing be used in Philippines. However the knowledge of using this material in Malaysia is still new, and be applied in Malaysia construction industry less 10 years.

Wood Wool Cement Board, widely known as WWCB is a composite of particles or strands of wood, or agricultural residues, and Portland cement. The combination of its special characteristic and properties puts it a class above the rest. Cement-bonded boards consists of readily available raw materials, are simple and inexpensive to make. Light in weight with structural strength, durability, high thermal and acoustic insulation and excellent fire resistance make it an ideal material for roof decking, concrete shuttering, external & internal walls, partitions ceilings, fire walls, protection of structural columns and life wells, insulation of cold rooms and drying kiln and various others.

In this project, it will cover on study and application of WWCB in Civil Engineering Construction especially on building single story house.