INTEGRITY AND INSULATION OF TIMBER STUD PARTITION WITH FIRE RETARDANT TREATMENT ON MERANTI SARANG PUNAI (*Shorea parvifolia*) PLYWOOD AS FACING MATERIAL

By

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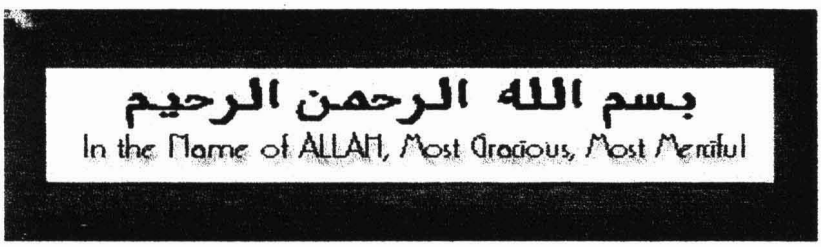

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Abstract

Non-load bearing timber stud partition using treated MSP plywood as the facing material has been subjected to a test in accordance with BS 476: Part 20: 1987 to determine its fire resistance performance. This study explored how simultaneous treatment of Monoammonium phosphate (MAP) and Diammonium Phosphate (DAP) for plywood from Meranti Sarang Punai (*Shorea parvifolia*) influenced the properties such as fire resistant. The overall size of the treated MSP plywood partition was built within a masonry brick wall. Each treated MSP plywood panel of 900 mm high by 810 mm wide by 18 mm thick was fixed on both sides to a vertical Tembusu or Penaga timber stud of sectional size 810 mm and 795 mm high by 50 mm wide by 50 mm thick. The treated MSP plywood panel were predrilled and fixed to the frame with nominal nails at 300 mm centres to centres. The wall cavity between the boards was than filled with 50mm thick rockwool namely Fibertex of stated density 100 kg/m^3. As result, MSP plywood treated with DAP shows failure in terms of Integrity during 116th minutes of period test while MAP shows failure also in terms of Integrity during 109th minutes of period test.