THE EFFECT OF SCREW TYPES ON THE HOLDING STRENGTH OF COMMERCIAL 15MM AND 18MM MEDIUM DENSITY FIBERBOARD (MDF)

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ABSTRACT

THE EFFECT OF SCREW TYPES ON THE HOLDING STRENGTH OF COMMERCIAL 15MM AND 18MM MEDIUM DENSITY FIBERBOARD (MDF)

An increasing demand on solid wood based product has led to insufficient supply to fulfil the market demand. As an alternative to meet the required demand, engineered wood was used. The logging industry produce a lot of wood waste and some of it were utilize to produce an engineered wood. It can be used as a substitute for solid wood, it can be used in furniture manufacturing but the behaviour of engineered wood is different from solid wood. Limited research has been conducted to study the performance of fasteners with this panel. Therefore, in this study the characteristics of each screw types were investigated to see the effect of screw types on commercial MDF 15mm and 18mm. The results indicate that the most suitable type of screw to be used with MDF is stainless steel and chromed plated screw. To the result differ from the lower screw withdrawal (SW) compare to brass screw for both thickness. In addition, MDF 18mm shows higher SW compare to MDF 15mm for all types of screw used. The SW was found to be higher at the face side of each thickness

Keyword: Commercial MDF, fastener, density, test direction, screw withdrawal.

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