

**PENGARUH VARIASI BERAT PARTIKEL TERHADAP
SIFAT PAPAN GIPSUM**

(Effect of Particle Weight Variation on the Properties of Gypsum Board)

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ABSTRACT

Research of gypsum board made from meranti (*Shorea sp*) wood particle with particle weight variation of 300 g, 400 g and 500 g has been carried out. Result of research showed that moisture content of gypsum board is 15.56 – 16.18 %, density 0.80 – 1.02 g/cm³, thickness swelling 1.51 – 2.32 % and modulus of rupture 16.28 – 43.98 kg/cm². Particle weight did not significantly effect thickness swelling, but significantly effect moisture content and density, and had highly significant effect on modulus of rupture. Thickness swelling requirement fulfilled the standard of Germany while density and modulus of rupture did not fulfill that requirement. Keyword : Gypsum board, wood particle, physical property and mechanical property.

ABSTRAK

Penelitian papan gipsum yang dibuat dari partikel kayu meranti (*Shorea sp*) dengan variasi berat partikel 300 g, 400 g dan 500 g telah dilakukan. Hasil penelitian menunjukkan bahwa nilai rata-rata kadar air papan gipsum 15,56 - 16,18 %, kerapatan 0,80 - 1,02 g/cm³, pengembangan tebal 1,51 - 2,32 %, modulus patah 16,28 - 43,98 kg/cm². Berat partikel tidak berpengaruh terhadap pengembangan tebal, tetapi berpengaruh nyata terhadap kadar air dan kerapatan dan berpengaruh sangat nyata terhadap modulus patah. Sifat pengembangan tebal papan memenuhi persyaratan standar Jerman sedangkan kerapatan dan modulus patah tidak memenuhi persyaratan tersebut.

Kata kunci : Papan gipsum, partikel kayu, sifat fisis dan sifat mekanis