

**PENGARUH PERBEDAAN KONSENTRASI PEREKAT  
GAMBIR (*Uncaria gambir, Roxb*) TERHADAP SIFAT FISIS  
DAN MEKANIS PAPAN PARTIKEL DARI LIMBAH KULIT  
DURIAN (*Durio zibethinus, Murr*)**



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Nada Septiana Putri, Anwar Kasim, Neswati

**ABSTRAK**

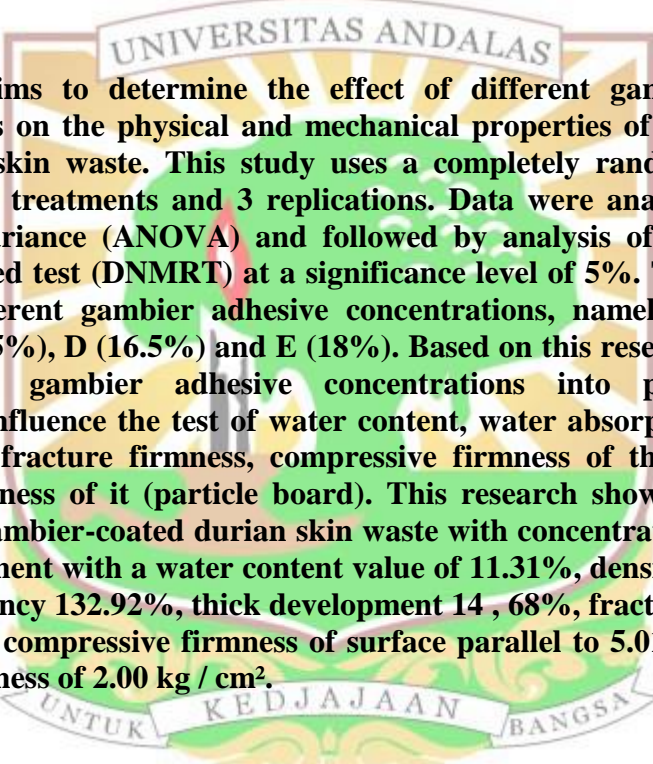
Penelitian ini bertujuan untuk mengetahui pengaruh perbedaan konsentrasi perekat gambir terhadap sifat fisis dan mekanis papan partikel dari limbah kulit durian. Penelitian ini menggunakan desain acak lengkap (RAL) dengan 5 perlakuan dan 3 ulangan. Data dianalisis dengan analisis varians (ANOVA) diikuti dengan analisis duncan's new multiple ranged test (DNMRT) pada tingkat signifikansi 5%. Perlakuan yang digunakan adalah perbedaan konsentrasi perekat gambir yaitu A (12%), B (13,5%), C (15%), D (16,5%) dan E (18%). Berdasarkan penelitian ini diketahui bahwa perbedaan konsentrasi perekat gambir berpengaruh signifikan terhadap uji kadar air, pengembangan tebal, keteguhan patah, keteguhan tekan sejajar permukaan, dan keteguhan rekat internal dari papan partikel itu sendiri. Penelitian ini menunjukkan bahwa papan partikel dari limbah kulit durian berperekat gambir dengan konsentrasi E (18%) adalah perlakuan terbaik dengan nilai kadar air 11,31%, kerapatan 0,74 g/cm<sup>2</sup>, daya serap air 132,92%, pengembangan tebal 14,68%, keteguhan patah 48,8 kg/cm<sup>2</sup>, keteguhan tekan sejajar permukaan 5,01 kg/cm<sup>2</sup>, dan keteguhan rekat internal 2,00 kg/cm<sup>2</sup>.

**Kata Kunci : Konsentrasi, Kulit Durian, Papan Partikel, Perekat Gambir**

***The Effect Of Different Gambir (*Uncaria Gambir, Roxb*) Adhesive Concentrationstoward The Physical And Mechanical Charracteristics Of Particle Board Which Made of Durian Skin Waste (*Durio Zibethinus, Murr*)***

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**ABSTRACK**



This study aims to determine the effect of different gambier adhesive concentrations on the physical and mechanical properties of particle board from durian skin waste. This study uses a completely randomized design (CRD) with 5 treatments and 3 replications. Data were analyzed by using analysis of variance (ANOVA) and followed by analysis of duncan's new multiple ranged test (DNMRT) at a significance level of 5%. The treatments used are different gambier adhesive concentrations, namely A (12%), B (13.5%), C (15%), D (16.5%) and E (18%). Based on this research, by giving the different gambier adhesive concentrations into particle board significantly influence the test of water content, water absorption, thickness development, fracture firmness, compressive firmness of the surface, and internal stickiness of it (particle board). This research shows that particle board from gambier-coated durian skin waste with concentration E (18%) is the best treatment with a water content value of 11.31%, density 0.74 g / cm<sup>2</sup>, water absorbency 132.92%, thick development 14 , 68%, fracture firmness of 48.8 kg / cm<sup>2</sup>, compressive firmness of surface parallel to 5.01 kg / cm<sup>2</sup>, and internal stickiness of 2.00 kg / cm<sup>2</sup>.

**Keywords : Concentration, Durian Skin, Gambir Adhesive, Particle Board**