

## **Rendemen dan Sifat Pengeringan Kayu Jati Unggul Dari Tiga Kelas Umur dan Ketebalan Sebagai Bahan Baku Parket**

Oleh:

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### **INTISARI**

Penelitian ini menganalisis rendemen dan sifat pengeringan kayu Jati Plus Perhutani (JPP) sortimen A1 pada tiga kelompok umur (11, 15, dan 20 tahun) yang digunakan sebagai bahan baku parket dengan tiga variasi ketebalan (12, 15, dan 18 mm). Analisis dilakukan terhadap karakteristik fisik log JPP (kadar air, berat jenis, dan persentase gubal) serta interaksi antara umur tanaman dan ketebalan parket terhadap rendemen dan sifat pengeringan kayu. Metode penelitian meliputi pengolahan log menjadi parket, pengukuran karakteristik fisik kayu, perhitungan rendemen, serta pengamatan dan pengukuran sifat pengeringan. Data dianalisis secara statistik menggunakan analisis Varianss (ANOVA) dan uji lanjut Tukey HSD. Hasil penelitian menunjukkan bahwa kadar air dan persentase kayu gubal pada Jati Plus Perhutani (JPP) berbeda signifikan antar kelompok umur tanaman. Nilai kadar air dan persentase kayu gubal tertinggi terdapat pada tanaman JPP umur 11 tahun, masing-masing sebesar 56,18% dan 61,92%. Sedangkan berat jenis tidak menunjukkan perbedaan yang signifikan antar kelompok umur, meskipun nilai tertinggi diperoleh pada tanaman JPP umur 20 tahun dengan berat jenis sebesar 0,55. Tidak terdapat interaksi yang signifikan antara umur tanaman JPP (11, 15, dan 20 tahun) dan ketebalan parket (12 mm, 15 mm, dan 18 mm) terhadap rendemen bahan baku parket. Meski demikian, umur tanaman JPP berpengaruh signifikan terhadap susut pengeringan dimensi tebal dan volume, serta terhadap cacat bentuk seperti *bow* dan *crook*. Pada pengujian tidak dijumpai cacat lain seperti retak, *twisting*, maupun *cupping*. Penelitian ini merekomendasikan bahwa pemilahan umur tanaman JPP pada umur 11, 15, dan 20 tahun tidak diperlukan apabila kelas diameter seragam. Namun, diperlukan kajian lanjutan terhadap tanaman JPP dengan kombinasi variasi umur dan diameter yang lebih beragam sebagai bahan baku parket. Selain itu, perlu dilakukan analisis perbandingan sifat atau karakteristik kayu JPP berumur di bawah 20 tahun dengan jati konvensional pada umur yang sama sebagai bahan baku parket.

**Kata kunci:** Rendemen, Sifat Pengeringan, Karakteristik Kayu, Jati Plus Perhutani, Perum Perhutani.

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## Recovery Yield and Drying Characteristics of Superior Teak Wood from Three Age Classes and Thickness Variations as Raw Material for Parquet Production

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### ABSTRACT

This study analyzes the recovery yield and drying characteristics of Jati Plus Perhutani (JPP) A1 logs across three age groups (11, 15, and 20 years), as raw material for parquet production with three thickness variations (12, 15, and 18 mm). The analysis includes the physical properties of JPP logs (moisture content, wood density, and percentage of sapwood), as well as the interaction between stand age and parquet thickness on yield recovery and drying characteristics. The research methodology involves processing logs into parquet, measuring physical wood characteristics, calculating recovery yield, and evaluating drying characteristics. Statistical analysis was conducted using analysis of variance (ANOVA) followed by Tukey's HSD post-hoc test. The results showed that moisture content and sapwood percentage differed significantly among the age groups. The highest values were observed in 11-year-old JPP, with a moisture content of 56.18% and a sapwood percentage of 61.92%. In contrast, wood density (specific gravity) did not differ significantly among age groups, although the highest value (0.55) was obtained in 20-year-old trees. No significant interaction was found between tree age (11, 15, and 20 years) and parquet thickness (12 mm, 15 mm, and 18 mm) on yield recovery. However, stand age significantly influenced thickness and volume shrinkage, as well as drying defects, particularly bow and crook. Other drying defects, such as checks, twisting, or cupping, were not observed. The study recommends that segregation of JPP logs by age (11, 15, and 20 years) is not required when the diameter class is uniform. Nonetheless, further research is needed to evaluate JPP trees with a broader range of ages and diameters as raw material for parquet. Additionally, a comparative analysis of the wood properties of JPP under 20 years old and conventional teak of the same age is recommended to evaluate their suitability as parquet raw material.

**Keywords:** Recovery Yield, Drying Characteristics, Wood Properties, Superior Teak Wood, Perum Perhutani.

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