

Penentuan Rendemen pada Pembuatan Furniture untuk mendukung Proses Verifikasi Legalitas Kayu

INTISARI

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Penentuan rendemen (%) pada industri pembuatan mebel dinilai cukup penting, karena rendemen dapat memberikan informasi untuk mengetahui rantai pasok, kebutuhan bahan, penentuan harga, dan membantu dalam pemenuhan penilaian Verifikasi Legalitas Kayu (VLK) yang sifatnya wajib. Tujuan penelitian untuk mengetahui perbandingan tingkat rendemen (%) menggunakan metode massa dan metode volume di setiap terminal proses produksi mebel di industri mebel.

Penelitian ini berlokasi di industri mebel besar berkapasitas 15.000 unit/tahun yang terletak di Boyolali-Jawa Tengah. Pengambilan sampel dilakukan dengan metode *purposive random sampling*. Metode tersebut digunakan untuk menentukan jenis komponen sampel dan model mebel terpilih. Penentuan rendemen dilakukan di setiap tahapan proses (terminal) atau mesin pengolah mebel. Rendemen dihitung berdasarkan massa dan berdasarkan volume. Hasil Kedua jenis rendemen tersebut selanjutnya diperbandingkan nilainya dan dianalisis kesesuaiannya termasuk dengan hasil penentuan pada penelitian yang lain dan peraturan terkait Sertifikasi VLK.

Hasil penelitian menunjukkan bahwa pada tahapan utama terdapat 5 (lima) tahapan/terminal yaitu untuk rendemen massa sebesar 93,71% (*cross cut* besar); 80,84% (*rip saw*); 80,52% (*jointer*); 84,87% (*planer*); dan 89,76% (*cross cut* kecil). sedangkan pada rendemen volume sebesar 97,34% (*kiln dry*); 94,84% (*cross cut* besar); 80,13% (*rip saw*); 80,27% (*jointer*); 84,69% (*planer*); 89,76% (*cross cut* kecil). Perhitungan rendemen juga dilakukan secara kumulatif dari setiap tahapannya yaitu rendemen massa sebesar 93,71% (*cross cut* besar); 75,76% (*rip saw*); 61,00% (*jointer*); 51,77% (*planer*); dan 46,47% (*cross cut* kecil), sedangkan pada rendemen volume rendemen volume sebesar 94,84% (*cross cut* besar); 76,00% (*rip saw*); 61,00% (*jointer*); 51,66% (*planer*); 46,37% (*cross cut* kecil). Berdasarkan nilainya, rendemen massa dan rendemen berdasar volume pada setiap terminalnya tidak berbeda nyata. Hal ini memberikan informasi bahwa untuk mendapatkan nilai rendemen produk furniture bisa menggunakan kedua metode tersebut. Penelitian ini juga menunjukkan bahwa nilai rendemen kumulatif dari kayu gergajian basah sampai produk mebel sebesar 32,35%, dimana lebih rendah dibandingkan aturan di VLK.

Kata kunci: Rendemen kayu, Industri mebel, Verifikasi Legalitas Kayu (VLK), SVLK

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Determination of Wood Recovery in the Furniture Manufacture to Support Timber Legality Verification Process

ABSTRACT

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Determining wood recovery (%) in the furniture manufacturing industry is considered quite important, because the recovery can provide information to determine the supply chain, material requirements, pricing, and assist in fulfilling the mandatory Timber Legality Verification assessment. The research objective was to determine the recovery using the mass method and the volume method at each terminal of the furniture production process in the furniture industry.

This research is located in a large furniture industry with a capacity of 15,000 units / year located in Boyolali, Central Java. Sampling was selected by using purposive random sampling method. This method is used to determine the type of sample component and furniture model. The recovery is determined at each stage of the process or the furniture processing machine. The recovery is calculated based on mass and b volume. The two types of recovery were then compared in value and analyzed for their suitability including the results of the determination of other studies and regulations related to VLK Certification.

The results showed that there were 5 (five) stages / terminals based on mass recovery, which are 93.71% (large cross cut); 80.84% (rip saw); 80.52% (jointer); 84.87% (planer); and 89.76% (small cross cut). while based on volume were 97.34% (kiln dry); 94.84% (large cross cut); 80.13% (rip saw); 80.27% (jointer); 84.69% planer); 89.76% (small cross cut). The recovery calculation was also carried out cumulatively from each stage, based on mass which were 93.71% (large cross cut); 75.76% (rip saw); 61.00% (jointer); 51.77% (planer); and 46.47% (small cross cut), while based on volume, which were 94.84% (after large cross cut); 76.00% (after rip saw); 61.00% (after jointer); 51.66% (after planer); 46.37% (after small cross cut). Based on the value of recovery, both method were not significantly different. This provides information that to get the recovery value of furniture products, both methods can be used. This research also shows that the cumulative recovery from wet sawn timber to furniture products is 32.35%, lower than that of state in Timber Legality Verification regulation

Keyword: Wood recovery, Furniture industry, Timber Legality Verification (VLK), SVLK

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