

KETERAWETAN 41 JENIS KAYU TERHADAP BAHAN PENGAWET CCB

Treatability of 41 Wood Species with CCB Preservatives

Oleh/by:

Sasa Abdurrohman dan Didik Achmad Sudika

ABSTRACT

Most of the Indonesian wood species exhibit a wide differences in treatability. This may reduce effectiveness in loading several wood species simultaneously. This study investigated treatability of 41 wood species through full-cell process using CCB (copper-chrome-boron) preservatives. Representative wood samples, measuring 5 cm wide, 5 cm thick and 100 cm long were prepared from each species and then remain to reach the air-dry condition. Pressures imposed during the process were consisted of initial and final vacuum at 500 mm Hg for 15 minutes, and a hydraulic pressure of 10 atmospheres for 60 minutes.

The results revealed that 20 of the study species were classified easy, 12 species were moderate, 5 species were difficult, and the remaining 4 species were very difficult. Wood species within the class could be treated simultaneously. Results also indicated that there were great variations of chemical retention within the same class of penetration.

Keywords: Treatability, full-cell process, retention, penetration, CCB

ABSTRAK

Sebagian besar jenis kayu Indonesia mempunyai keterawetan yang berbeda, sehingga dapat membatasi efektivitas hasil pengawetan pada campuran beberapa jenis kayu. Untuk memenuhi kebutuhan tersebut perlu ditentukan klasifikasi keterawetan kayu Indonesia.

Dalam penelitian ini digunakan 41 jenis kayu yang diawetkan secara sel penuh menggunakan bahan pengawet CCB (tembaga-khrom-boron). Contoh kayu kering udara berukuran lebar 5 cm, tebal 5 cm dan panjang 100 cm diawetkan dengan konsentrasi 3%, dengan vakum awal dan akhir sebesar 500 mm Hg masing-masing selama 15 menit dan tekanan hidrolik sebesar 10 atm selama 60 menit.

Hasil penelitian menunjukkan bahwa 20 jenis kayu mempunyai keterawetan mudah, 12 jenis sedang, 5 jenis sukar, dan 4 jenis sangat sukar. Nilai retensi beragam pada kelompok dengan kelas keterawetan sama, sehingga dalam pengelompokkan perlu memperhatikan retensinya.

Kata kunci: Keterawetan, proses sel penuh, retensi, penetrasi, CCB (tembaga-khrom-boron)