Strength properties of preservative treated Gigantochloa scortechinii after vacuum impregnation process

Abstract

Strength properties of preservative treated two-year-old and four-year-old Gigantochloa scortechinii Gamble were evaluated. The preservatives used in the study were Ammonium Copper-Quaternary (ACQ), Copper Chrome Arsenic (CCA) and Borax Boric Acid (BBA) at 2 and 4% concentrations using vacuum pressure impregnation process. It was found that there was an overall strength reduction in the treated bamboo immediately after treatment. The strength reduction ranged from 4.9 to 7.6% for ACQ, 5.0 to 7.2% for BBA and 5.9 to 7.9% for CCA treated bamboo. The reduction in strength was found to be dependent on the type of preservatives applied, concentration used and their retention in the bamboo.