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Biocide Treatments for Engineered Composite Panels

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Abstract

This study was designed to investigate the effect of biocide addition on the properties of randomly oriented wood strandboard. Included in the study were new generation preservative systems including copper naphthenate, betaine, and copper betaine added to a southern pine furnish containing no more than 4% low and medium density hardwoods. Study variables included treatment level, mode of biocide addition (flake pretreatment, spray incorporation), and biocide form (powdered, liquid). Comparison was made with untreated panels and panels treated with the industry standard, zinc borate. Bending and dimensional properties were evaluated in this preliminary study. Results are discussed in terms of biocide and treatment mode. Few deleterious effects were found for boards treated with the copper compounds or betaine when compared to those for zinc borate treatments.