

Abstract

Artificial veneers (such as paper sheets) are used to cover particle board, fiber board, and ply wood. Waste paper can be used as a raw material to produce veneers. In this study, the manufacture of compressed paper layers and their best installation on particle board was investigated in two stages. In the first stage, waste paper (newspaper, official paper and carton) was recycled and used to make compressed paper layers and the flexural strength of the obtained papers was investigated. Then, pressed paper layers were made using phenol formaldehyde glue and in different conditions such as borax for anti-fire. Flexural strength, anti-fire properties (flame time, sample burn time after flame shutdown and burned altitude) and water absorption (after 2 hours, 24 hours and 48 hours immersion in water) were tested. The results showed that the paper layer made of borax ink off newspaper can be used as an overlay on compressed wood binders due to its more resistant to other layers. Compressed paper layers made of borax ink off newspaper is fastened on particle board and increases the resistance of particle board.

Keywords: High Pressure Laminate, Recycling of waste paper, Stiffness Strength, borax



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