

Enhancing Colour Appearances of Cultivated 15 year-old Acacia hybrid Through Oil Heat Treatment Process

Abstract

This study investigated the effect of oil heat treatment process on colour appearance of cultivated Acacia hybrid. Parameters such as temperatures and treatment time are taken in account due to their influences in enhancing the colour changes of the natural untreated and oil heat treated of the wood from sapwood right through the heartwood. Young, natural and untreated Acacia hybrid would normally have the sapwood having lighter colour than the dark colour heartwood. Turning these timbers into plywood or furniture at this stage will result in uneven colour as the results of the mixture between the sapwood and heartwood. This will decrease the value of the products. Heating the wood at varying temperatures and treatment time would enhance the colour appearance of the young wood. The colour changes in the sapwood and heartwood were measured using Minolta Chroma-meter CR-310 and the results are presented according to the CIE L*a*b* colour co-ordinates system. The results revealed that the rising temperature at certain duration resulted in enhancing and darkening of wood tissues.