PROPERTIES OF NAIL WITHDRAWAL HOLDINGS ON SENTANG TIMBER (AZADIRACHTA EXCELSA)

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This final year project report submitted in Partial fulfilment of the Requirements for the Degree Bachelor of Science (Hons.) Furniture Technology In the Faculty of Applied Sciences, Universiti Teknologi MARA.

CANDIDATE'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations on Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledge as a reference work. This thesis has not been submitted to any other academic institution or non-academic institution for any other degree or qualification. In the event that my thesis is found to violate the conditions mentioned above, I voluntarily waive the right of conferring of my degree and agree to subject to the disciplinary rules and regulation of Universiti Teknologi MARA.

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ABSTRACT

Properties of Nail Withdrawal Holdings on Sentang Species

This study was conducted to test the nail withdrawal holdings on Sentang timber. Sentang (*Azadirachta excelsa*) were choose as a raw material because of the plantation species which fast growing tree. Fifty-four samples were determined in this study. The dimensions of the samples were (50 x 50 x 100) mm was prepared. Carbon metal type of nails with sizes of diameter and length at 3.16 x 77.85 mm for screw shank nail, 2.87 x 73.08 mm ring shank nail and 3.36 x 62.33 mm for smooth shank nail were used in the study. The data of withdrawal resistance of three types of nails were represented in maximum load, N. the nails were tested according to ASTM D1761- 2012 standards. Results show the highest value of nail withdrawal strength found in screw shank nails followed by smooth shank nail and ring shank nail. Between three types of nails, they are not significant different strength.

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