

LOG RECOVERY AND SHRINKAGE PROPERTIES OF KNOWN SPECIES

By

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ABSTRACT

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The main target for this study is to investigate and determine the log recovery, which the logs are get from wood species known in UiTM Jengka Forest, Pahang Darul Makmur. The wood species including in my study are Meranti Tembaga, Meranti Sarang Punai, Kedondong, Sepetir Daun Licin and Mempening. The log recovery study concerned here include determine the methods of sawing and calculated the volume (m^3) of log wood species and the volume (m^3) of sawntimber of wood species. The volume (m^3) of log wood species are acquired and calculated by multiplication the cross of sectional at small ends with the length of log. The volume (m^3) of sawntimber of wood species are acquired and calculated by multiplication all the dimension of the sawntimber, which multiplication the length, width and thickness of sawntimber. The result shown, the average percentage of log recovery yield for Meranti Sarang Punai gave the highest of the log recovery yield, even the log volumes of Meranti Tembaga is bigger than the log volumes of Meranti Sarang Punai. There have over 83% of log recovery yield for Meranti Tembaga.

The secondly target for this study is to investigate and determine the shrinkage of the wood species known. The woods species include in my study are Meranti Tembaga, Meranti Sarang Punai, Kedondong, Sepetir Daun Licin and Mempening. The shrinkage of the wood species known are concerned here include the shrinkage on the tangential face of the wood block of wood species and the radial face of the wood block of wood species. The dimensions specimens of wood block, which used in this study, are 3 cm thickness, 3 cm width, and 5 cm length of wood block. By 3 cm, the longer dimension being truly radial or tangential face. All of the wood block specimen are soaked into the water for three day as the period of immersion this study. Make sure all of the wood block is soaked fully in the water of basin. After three day, determine and measure the changing of size dimension of wood block on the tangential face and radial face. Then, all of the dimensions of wood block are noted before the wood block brings to drying processing using the oven. For this study, there are using 60° of temperature for 24 hours. Then, the dimension of wood block is estimated and noted them. Then determine and measure the changing of size dimension of wood block on the tangential face and radial face. The shrinkage is determined after oven drying. The shrinkage is based on the green dimensions. The result shown, the average shrinkage percentage of Meranti Tembaga, which more than 4 % is the highest of the shrinkage percentage from others wood species on the tangential face. For the radial face, there shown the average shrinkage percentage of Sepetir Daun Licin is the highest. There is more than 1 % of shrinkage percentage for Sepetir Daun Licin.

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