

**EFFECT OF ALLOWANCE AND ADHESIVE ON MORTISE AND
TENON JOINT**

NUR ALIA NAILA BINTI MOHAMI

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Universiti Teknologi MARA**

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ABSTRACT

EFFECT OF ALLOWANCE AND ADHESIVE ON MORTISE AND TENON JOINT

Mortise and tenon joint is one of the strongest joint in wood joinery industry. It is used in many structural and non-structural products. A study was undertaken to determine the properties of mortise and tenon joint bending strength by applying three differences of allowance and to study the effect of adhesive with performance of joint from Kelampayan species. The allowances that were used in this study are 0.05 mm, 0.1 mm and 0.5 mm, using two types of condition in which PVAc glue condition and unglue condition. The bending strength properties were determined by using in-house method. The result of the study shows that 0.05mm of allowance with glue condition has the higher mean of Modulus of Rupture (MOR) and Modulus of Elasticity (MOE) value of 6.17 MPa and 1742.65 MPa. This is because the combination of allowance and glue gave good performance strength to mortise and tenon joint. However, 0.1 mm and 0.5 mm of allowances still can used in industry due to the have no significant different of mechanical properties value.