

**BENDING STRENGTH PROPERTIES OF THREE DIFFERENT FINGER PROFILE
USING DARK RED MERANTI (*Shorea spp*), MERAWAN (*Hopea spp*)
AND BINTANGOR (*Calophyllum spp*)**

By

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ABSTRACT

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Finger jointing is one of the popular jointing in wood products based in wood industry. At the present, this product is the most popular in the furniture industry as substitute material to replaces the solid wood in building construction and furniture manufacturing. This study was related with the objectives to determine the bending strength properties of three different finger profile using dark red meranti (*shorea spp*), merawan (*hopea spp*) and bintangor (*calophyllum spp*). The three different finger profile include twelve finger profile, ten finger profile, and eight finger profile where its profile were bonding or connect with Polyvinyl acetate (PVA) resin. The Implementation of bending testing generally to find the strength properties of the specimen. After finish the study, we get that the twelve finger profile produce high strength than ten and eight finger profile. It happen because twelve finger profile have more surface area are bonded or contact with resin. For species, we conclude that Bintangor (*Calophyllum spp*) are stronger than Merawan (*Hopea spp*) and Dark Red Meranti (*Shorea spp*). Bintangor produce high strength and very durable because it have small size of vessels and less exposed of vessels that why resin difficult to fill the vessels and bonded perfectly to the jointing surface. Therefore, the strength properties of each finger profile are compare with standard range of three species used which is dark red meranti (*shorea spp*), merawan (*hopea spp*) and bintangor (*calophyllum spp*). It is hope that the value derived from this study can be a beneficial guide in assessing the properties of three different finger profile.