

# Investigation on Strength Variation of Plywood with Different Thickness and Types of Wood

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Wood is known as a strong material, used in various products in day-to-day life. Wood based raw materials are expensive and higher demand for wood contributes to forest degradation and deforestation. Instead of raw wood, plywood materials can be used and produced from wood waste such as; wood dust, wood gram, or thin slices of wood. Plywood applications include good electrical insulators, that are highly useful in the building industry and to reduce fuel consumption. The aim of this work is to investigate Young's Modulus and Compressive Strength of Plywood materials made from different numbers of slices and types of wood. The sample was prepared like a beam (50 cm × 2.5 cm) with different thicknesses and Young's Modulus was calculated by the end-loaded method. The plywood sample with a smooth surface was used for the Compressive Strength measurement. The properties of Plywood with different numbers of slices depending on the thickness and type of wood material. The properties vary depending on the number of slices, thickness, and the type of wood. The Young's Modulus and Compressive strength of the plywood increase with increasing the number of slices.

Keywords: Compressive Strength, Plywood, Wood Slices, Young's Modulus