

# **A Study on The Mechanical Properties of Epoxy/Coconut Fiber Composites**

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## **Abstract**

We have fabricated the Epoxy/Coconut Fiber by hand lay-up technique and studied its mechanical properties by universal testing machine, Impact testing machine and microhardness testing machine. We observed the tensile strength, impact strength and Vicker's microhardness from the Epoxy/Coconut Fiber composite which are 510 MPa, 10 J and 132.76 HV respectively. We compared the properties obtained from the Epoxy/Coconut Fiber composite with the properties of Epoxy/Banana Fiber composite and Epoxy/Coconut Fiber composite proved itself better in terms of mechanical properties.

## **Keywords**

Hand Lay-up, Tensile Strength, Impact Strength, Microhardness

## **Biographies**

**Afra Ibnat Progga, Sajid Jahan Siddique, Ishmam Abrar Shahad and Md. Ashraful Islam** are third-year IPE students at AIUB. Their areas of interest cover the Comparative Study of the Mechanical Properties of Green Composites. They are currently engaged in research aimed at exploring and analyzing the mechanical performance of environmentally friendly composite materials, focusing on their potential applications and the factors influencing their strength, durability, and sustainability.

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