

## Mechanical Behavior of Banana Peel Reinforced Polymer Composites

**Authors :** A. Lakshumu Naidu, K. Krishna Kishor

**Abstract :** This paper examines the results of an experimental study based on the engineering properties of banana peel reinforced epoxy composites. Experiments are carried out to study the effect of weight fraction on mechanical behavior of epoxy based polymer composites. The composites were made by varying the weight fraction of banana peel from 0 to 30% and banana peel were made using hand layup method. The fabricated composite samples were cut according to the ASTM standards for different experiments. Hardness test and density test were carried out at the samples. The maximum hardness, density, tensile strength, flexural strength and ILSS are getting for the material prepared with the 20 % reinforced banana peel epoxy composite. The detailed test results and observations are discussed sequentially in the paper.

**Keywords :** engineering properties, polymer, composite, mechanical behavior of banana peel

**Conference Title :** ICSRD 2020 : International Conference on Scientific Research and Development

**Conference Location :** Chicago, United States

**Conference Dates :** December 12-13, 2020