Journal Article – Volume 22, Issue 3, Journal of Sandwich Structures and Materials 2020, Pages 525 - 550

Synthesis and characterization of natural fiber reinforced polymer composites as core for honeycomb core structure: A review

Abstract

Researchers have worked on variety of natural fibers reinforced with polymer composites using different parameters to come up with various recommendations. The investigation involved aspects of composition materials and mechanical properties of natural fiber composites. The satisfactory results of natural fiber composites have encouraged researchers to delve deeper into the abilities of natural fiber composite in the form of a core structure. The potentiality of utilizing natural fiber composite in core design has wide potential in modern industries. This paper presents a review on natural fibers and polymer matrices commonly used in core fabrication, core design, fabricating processes of cores, and mechanical properties of cores. Ongoing research of rice husk composites to be fabricated in the form of honeycomb core structures is also discussed.

Keywords

Core design; Honeycomb structure; Natural fibers composite; Polypropylene reinforced rice husk composite