

A review of rice husk bio-based composites

ABSTRACT

Development of new bio- based composites from renewable resources is getting wide attention from researchers due to environmental issue caused by traditional composites. Rice husk is a new potential renewable source of fillers for bio-composites to produce green products. Rice husk is the outer sheath surrounding rice grains during their growth. The aim of this work is to systematically review the parameters that affect the rice husk -polymeric composites in order to enhance their usage in various sustainable designs and applications. It is dedicated that rice husk composites are not used effectively due to the lack of understanding over its potential for such green composites. Moreover, systematic review of the published works demonstrated that the lack of awareness to environmental problems and technology as well as socio-economy problems prevent proper utilization of rice in bio-composites for sustainable products. Moreover, systematic discussions of the parameters that affect the performance of rice husk - composites are illustrated in this work to enhance its implementations for future sustainable products.

Keyword: Rice husk; Polymer composites; Natural filler; Bio-composites; Mechanical properties