

**ABSTRACT:**

The objective of this study was to investigate the effects of rice husk and acrylic impact modifiers on the mechanical properties of unplasticised poly(vinyl chloride) (PVC-U) composites. The composites were prepared using a two-roll mill at temperature 165 °C before being hot pressed at 185 °C. The incorporation of rice husk (RH) fillers from 10 to 40 per hundred resin (phr) has increased the flexural and tensile modulus of the unmodified and modified (8 phr impact modifier) PVC-U composite. The flexural strength for both unmodified and modified PVC-U composite was observed to increase until RH loading of 20 phr. However, the tensile and impact strength of PVC-U composite decreased with RH loading. The scanning electron microscopy (SEM) showed that the rice husk fillers agglomerated and unevenly distributed throughout the matrix. The result showed that the impact strength of the filled PVC-U composites (20 phr filler) increased but the tensile and flexural properties decreased with increasing impact modifier content. The formulation containing 8 phr of acrylic impact modifier and 20 phr of RH loading showed the best balance of stiffness and toughness properties.