

Properties of automobile using PP/Kenaf Composites

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In recent years, the reduction of carbon dioxide (CO²) emissions has become one of the most important issues in the automotive industry. Lighter weight components can contribute to reduce overall automotive weight, resulting in reduced fuel consumption and less CO² emissions. For this reason many automotive components are made from polypropylene (PP), because PP has many desirable properties, such as low density, high thermal stability, and good solvent resistance. However, compared with engineering polymers, the modulus properties of polypropylene is relatively low. Talc minerals have used with the PP to increase the modulus properties, but talc minerals can cause high density, poor process ability, and lower weather ability. Recently, kenaf has been highlighted as a PP additive. Kenaf in the PP shows excellent properties. One of the problems to expand the use of Kenaf in composite materials is the poor bonding force of the classical type of polymers. This study focused on high modulus PP/Kenaf composites using high contents of maleic anhydride-grafted PP (PP-g-MAH).