

Compatibilization of Polypropylene/Ethylene Propylene Diene Terpolymer/Kaolin Composites: The Effect of Maleic Anhydride-Grafted-Polypropylene

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Abstract: *The tensile properties and morphology of polypropylene (PP)/ethylene propylene diene terpolymer (EPDM)/kaolin composites were investigated. Maleic anhydride-grafted-polypropylene (MAPP) was used as a compatibiliser to improve the compatibility of kaolin filled PP/EPDM composites. Results show that incorporation of MAPP increased the tensile strength and Young's modulus, but reduced the elongation at break. Scanning electron microscopy (SEM) of the tensile fracture surfaces of composites indicates that the MAPP improved the interfacial interaction between kaolin and PP/EPDM matrix.*

Keywords: polypropylene, ethylene propylene diene terpolymer, kaolin, compatibiliser, composites