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**TOUGHENING OF POLY(BUTYLENE TEREPHTHALATE) WITH FUNCTIONALIZED ETHYLENE  
PROPYLENE DIENE MONOMER COPOLYMER**

Deeplata Singh. S.N.Maiti

*Centre for Polymer Science and Engineering, Indian Institute of Technology Delhi, New Delhi – 110016, India*

*Email : [deeplata.singh@gmail.com](mailto:deeplata.singh@gmail.com)*

PBT is a widely used engineering thermoplastic. It is highly crystallizable polymer with good mechanical and electrical properties, excellent solvent resistance, and good hydrolytic stability. However PBT's impact and biaxial impact strength provide only modest practical toughness. Most unfunctionalized rubbery materials do not show any affinity for PBT and give gross phase separation and poor mechanical properties. EPDM-g-MA blends containing EPDM-g-MA as impact modifier in different proportions were obtained by extrusion and injection molding. The mechanical properties of PBT/EPDM-g-MA blends were investigated. The results showed that addition of EPDM-g-MA led to great increase in impact strength, elongation at break, and a reduction in the tensile strength and flexural properties. The blend morphology observed by scanning electron microscopy showed decrease of average diameter of dispersed phase due to enhanced phase interaction. The increase in impact strength and elongation at break was due to enhanced phase interaction. The increase in impact strength and elongation at break was due to improved compatibility achieved by modifying EPDM with MA.