

## DEVELOPMENT OF COMPATIBILIZED SAN/PBT NANOBLENDS

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Styrene-Acrylonitrile (SAN) copolymer has been blended to poly(butylene terephthalate) (PBT) to obtain polymer nanoblends based on microrheological aspects. For immiscible SAN/PBT blends the disperse particle size was predicted using suitable equations and it was observed by transmission electron microscopy (TEM). Acrylic copolymer was used as compatibilizer to modify the interfacial tension and reduce the disperse phase dimensions. The increase of elasticity of the blends can be used to evaluate interfacial tension among blend phases using emulsion models. The *Choi and Showlter* and *Palierne* models has been used to measure the interfacial tension of blends. The relaxation spectra were obtained using dynamic storage modulus experimental data applying a nonlinear regression method. The compatibilizer has shown strong effect by reducing the interfacial tension and by preventing the coalescence effect. The compatibilized blends have shown disperse particle size within the nanoscale.