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The Effects of Phase Morphologies on the Mechanical Properties in Thin-Walled Applications of Polycarbonate (PC)/ Polybutyleneterephthalate (PBT) Alloy

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It is well known that the wall thickness of molded article strongly affects on the mechanical properties of compounds such as impact strength and fatigue resistance. In case of immiscible engineering plastics compounds, another factor, the phase morphology, plays a crucial role in determining the mechanical properties. In this study, with PC/PBT alloy, the effects of phase morphology were scrutinized as a function of the wall thickness. It was demonstrated that the certain type of nano-scale morphology gives the best mechanical properties.