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""PART II. ENHANCEMENT OF INTERFACIAL ADHESION AT ASYMMETRIC POLYMER INTERFACE VIA IN-SITU REACTIVE COMPATIBILIZATION """"Introduction ""; ""Experimental ""; ""Preparation of Specimens""; ""Characterization ""; ""Interfacial Adhesion ""; ""Interfacial Morphology ""; ""Determination of the Density of Copolymers at the Interface ""; ""Interfacial Fracture Mechanism ""; ""SECTION I. THE INTERFACIAL ADHESION AND FRACTURE MECHANISM OF PE/PA6 IN SITU REACTIVE COMPATIBILIZED BY THE ADDITION OF PE-MAH INTO PE INTERFACE""
""1. Effect of PE-MAH Content and Processing Parameters on the Interfacial Adhesion """"2. Interfacial Morphology""; ""3. Interfacial Fracture Mechanism ""; ""SECTION II. EFFECT OF GRADIENT COOLING ON THE REACTIVE REINFORCEMENT IN A SEQUENTIAL INJECTION MOLDING ""; ""1. The Relationship between IS andin a Sequential Injection Molding Process ""; ""2. The Relationship between IS andin Isothermal Annealing Process ""; ""SECTION III. EFFECT OF A TIE LAYER ON THE ENHANCED INTERFACIAL ADHESION BETWEEN PE AND PA6 IN A SEQUENTIAL INJECTION MOLDING ""
""1. Effect of Processing Parameters on Interfacial Adhesion of Overinjection Molded PE/Tie Layer/PA6 Interface ""

Sommario/riassunto

Injection molding is one of the most versatile and important manufacturing processes, capable of mass-producing complicated plastic parts in a variety of complex shapes with high dimensional precision. It is a major processing technique for converting thermoplastic and thermosetting materials with the aid of heat and pressure into complicated parts, consuming worldwide approximately 32% of all plastics. This book presents current research data in the study of injection molding from across the globe, including an overview of injection molding as a manufacturing technique for pharmaceutical applications; melt/solid weldline in over injection molding; metal injection molding of Co for biomedical applications; and the application of ultrasonic technology in the injection molding process.