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Nota di contenuto	POLYOLEFIN BLENDS; Contents; Preface; Contributors; Part I Introduction; 1. Overview of Polyolefin Blends; 1.1 Introduction; 1.2 Olefinic Monomers; 1.3 Polyolefin Homopolymers, Copolymers, and Terpolymers; 1.4 Polyolefin Blends; 1.5 Trends in Polyolefin Blends; Nomenclature; References; 2. Miscibility and Characteristics of Polyolefin Blends; 2.1 Introduction; 2.1.1 Polyolefins; 2.1.2 Blends; 2.2 Polymer Blend Miscibility; 2.3 Interfaces in Liquid and Polymer Mixtures; 2.4 Polyolefin-Polyolefin Blends; 2.4.1 Blends between Polyethylenes 2.4.2 Blends between Isotactic Polypropylene and Ethylene Propylene Copolymers 2.4.3 Blends between iPP and High Comonomer Concentration Polyethylene Copolymers; 2.4.4 Blends between iPP and PB1; 2.5 Binary Immiscible Blends; 2.5.1 Polyolefin-Polystyrene Blends; 2.5.2 Polyolefin-Polyamide Blends; 2.6 Ternary Blends of Polyolefins with Other Polymers and Compatibilizing Agents; 2.6.1 Surfactants and Compatibilizing Agents; 2.6.2 Polyolefin-Polystyrene Blends with Compatibilizing Agents; 2.6.3 Polyolefin-Polyamide Blends with

Compatibilizing Agents; 2.7 Conclusions; Nomenclature; References

Part II Polyolefin/Polyolefin Blends

3. Miscibility, Morphology, and Properties of Polyethylene Blends; 3.1 Introduction; 3.2 Structure and Properties of Polyethylenes; 3.3 Applications of Polyethylene Blends; 3.4 Molar Mass and Branching Distributions; 3.5 Crystallization, Melting, and Branching of Polyethylenes; 3.6 Miscibility and Crystallization; 3.7 Theoretical Prediction of Miscibility; 3.8 Rheology of Melted Polyethylene Blends; 3.9 Mechanical Properties of Polyethylene Blends; 3.10 Additives; 3.11 Conclusions; Nomenclature; References

4. Miscibility and Crystallization Behavior in Binary Polyethylene Blends

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5. Microscopically Viewed Structural Characteristics of Polyethylene Blends Between Deuterated and Hydrogenated Species: CocrySTALLIZATION and Phase Separation

5.1 Introduction; 5.2 CocrySTALLIZATION and Phase Separation of PE Blends; 5.3 Aggregation Structure of Chains in Lamella; 5.4 Crystallization Behavior of D/H Blend Samples; 5.4.1 Crystallization in the Cooling Process from the Melt; 5.4.2 Isothermal Crystallization Process; 5.4.3 Blending Effect on Crystallization Rate; 5.5 Mixing Behavior of D and H Components; 5.6 Conclusions; Acknowledgments; Nomenclature; References

6. Thermal and Structural Characterization of Binary and Ternary Blends Based on Isotactic Polypropylene, Isotactic Poly (1-Butene) and Hydrogenated Oligo (Cyclopentadiene)

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## Sommario/riassunto

The definitive reference on the properties and applications of polyolefin blends. Polyolefins account for more than half of total plastics consumption in the world. In recent years, usage of and research on polyolefin blends have increased significantly due to new applications in medicine, packaging, and other fields and the development of novel polyolefins. With a special emphasis on nano- and micro-structures of crystals and phase morphology, Polyolefin Blends condenses and consolidates current information on polyolefins so that the reader can compare, select, and integrate a material

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