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 3.3 Properties of the Hybrid Materials3.3.1 State of Dispersion; 3.3.2 Stress-Strain Curves; 3.3.3 Low Strain Dynamic Properties; 3.3.4 Mullins Effect; 3.3.5 Characterization of the Polymer-Filler Interface; 3.3.6 Thermal Properties; 3.4 Conclusions; References; 4 Interface Modification and Characterization; 4.1 Introduction; 4.1.1 Particle Size; 4.1.2 Surface Activity; 4.2 Rubber Nanocomposites Without Interface Modification; 4.2.1 Hardness and 300% Tensile Modulus; 4.2.2 Tensile Strength; 4.2.3 Tensile Strain; 4.2.4 Tear Strength; 4.2.5 Rebound Resilience; 4.2.6 Processing Properties
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 7.1 Introduction

Sommario/riassunto

Rubber Nanocomposites: Preparation, Properties and Applications focuses on the preparation, characterization and properties of natural and synthetic rubber nanocomposites. The book carefully debates the preparation of unmodified and modified nanofillers, various manufacturing techniques of rubber nanocomposites, structure, morphology and properties of nanocomposites. The text reviews the processing; characterization and properties of 0-, 1D and 2D nanofiller reinforced rubber nanocomposites. It examines the polymer/filler interaction, i.e., the compatibility between matrix and filler u