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Nota di contenuto	Contents; Contributor contact details; Preface; 1 Polyamide/clay nanocomposites; 2 Epoxy nanocomposites based on layered silicates and other nanostructured fillers; 3 Biodegradable polymer/layered silicate nanocomposites; 4 Polypropylene layered silicate nanocomposites; 5 Polystyrene/clay nanocomposites; 6 Poly(ethyl acrylate)/bentonite nanocomposites; 7 Clay-acrylate nanocomposite photopolymers; 8 Nanocomposites based on water soluble polymers and unmodified smectite clays; 9 Poly(butylene terephthalate) (PBT) based nanocomposites 10 Flammability and thermal stability of polymer/layered silicate nanocomposites 11 Barrier properties of polymer/clay nanocomposites; 12 Rubber-clay nanocomposites; 13 Single-walled carbon nanotubes in epoxy composites; 14 Fullerene/carbon nanotube (CNT) composites; 15 Filled polymer nanocomposites containing functionalized nanoparticles; 16 Polymer/calcium carbonate nanocomposites; 17 Magnetic polymer nanocomposites; 18 Phenolic resin/SiO ₂ organic-inorganic hybrid nanocomposites; 19 Polymer/graphite

Sommario/riassunto

Polymer nanocomposites are a class of reinforced polymers with low quantities of nanometric-sized clay particles which give them improved barrier properties, fire resistance and strength. Such properties have made them valuable in components such as panels and as barrier and coating materials in automobile, civil and electrical engineering as well as packaging. Polymer nanocomposites provides a comprehensive review of the main types of polymer nanocomposite and their properties.