1. Record Nr. UNINA9910254150003321

Titolo	Fillers for Polymer Applications / / edited by Roger Rothon
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-28117-8
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (164 illus., 75 illus. in color. eReference.)
Collana	Polymers and Polymeric Composites: A Reference Series, , 2510-3466
Disciplina	668.9
Soggetti	Polymers Ceramic materials Soft condensed matter Materials Ceramics Soft and Granular Matter Materials Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The Market for Particulate Fillers -- Particulate Fillers, Selection and Use in Polymer Composites -- Surface Modifiers for use with Particulate Fillers -- Particulate Fillers in Thermoplastics -- Compounding of Particulate Filled Thermoplastics -- Particulate Fillers in Thermosets -- Particulate Fillers in Elastomers -- Barium Sulphate -- Calcium Carbonate Fillers -- Carbon Black as a Polymer Filler -- Clays -- Feldspars and Syenites -- Glass Flakes and Spheres -- Micas -- Magnetite -- Talcs -- Wollastonites -- Bio-Fillers -- Precipitated and Fumed Silicas -- Recycled and Sustainable Fillers -- Nano-Fillers -- Antiblock Additives -- Flame Retardant Fillers -- Graphitic Carbon Powders for Polymer Applications -- Carbon Black for Electrically Conductive Polymer Applications -- Thermally Conductive Additives.
Sommario/riassunto	This handbook provides an introduction to and reference information about the science behind the production and use of particulate fillers in polymer applications. Fillers play an important role and are used with practically all types of polymers: thermoplastics, thermosets, elastomers. Readers will find an introduction to the topic of particulate

fillers for polymer applications and their importance. The first chapters describe the use and characteristics of fillers in different polymer types, such as thermoplastics, thermosets and elastomers. The following chapters compile and summarize comprehensive information about different filler materials which find application nowadays, including mineral fillers (for example feldspars, wollastonites, and many more) and inorganic fillers (barium sulphate, or clays), bio-fillers, recycled and sustainable fillers, and fillers for specific applications (for example flame-retardant fillers, fillers for electrically conductive applications, or thermally conductive additives). Offering key information, compiled by a mixed team of authors from academia and industry, this handbook will appeal to researchers and professionals working on and with particulate polymer fillers alike.