

1. Record Nr.	UNINA9910139470103321
Titolo	Functional fillers for plastics [[electronic resource] /] / edited by Marino Xanthos
Pubbl/distr/stampa	Weinheim, : Wiley-VCH Verlag GmbH & Co., 2010
ISBN	1-282-68576-7 9786612685767 3-527-62984-X 3-527-62985-8
Edizione	[Second, updated and enlarged edition]
Descrizione fisica	1 online resource (537 p.)
Altri autori (Persone)	XanthosMarino
Disciplina	668.411
Soggetti	Plastics - Additives Fillers (Materials) Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Functional Fillers for Plastics; Contents; Preface to the 2nd Edition; Preface to the 1st Edition; List of Contributors; List of Symbols; Part One: Polymers and Fillers; 1 Polymers and Polymer Composites; 1.1 Thermoplastics and Thermosets; 1.2 Processing of Thermoplastics and Thermosets; 1.3 Polymer Composites; 1.3.1 Types and Components of Polymer Composites; 1.3.2 Parameters Affecting Properties of Composites; 1.3.3 Effects of Fillers/Reinforcements: Functions; 1.3.4 Rules of Mixtures for Composites; 1.3.5 Functional Fillers; 1.3.5.1 Classification and Types 1.3.5.2 Applications, Trends, and ChallengesReferences; 2 Modification of Polymer Properties with Functional Fillers; 2.1 Introduction; 2.2 The Importance of the Interface; 2.3 Modification of Mechanical Properties; 2.3.1 General; 2.3.2 Modulus of Fiber and Lamellar Composites; 2.3.2.1 Continuous Reinforcements; 2.3.2.2 Discontinuous Reinforcements; 2.3.3 Modulus of Composites Incorporating Particulates; 2.3.4 Strength of Fiber and Lamellar Composites; 2.3.4.1 Continuous Reinforcements; 2.3.4.2 Discontinuous Reinforcements; 2.3.5 Strength of Composites Containing Particulates

2.3.6 Toughness Considerations 2.3.7 Temperature and Time Effects;  
 2.3.8 Other Properties; 2.3.8.1 Tribological Properties; 2.3.8.2  
 Permeability; 2.4 Effects of Fillers on Processing Characteristics of  
 Polymers; 2.4.1 General; 2.4.2 Melt Rheology of Filled Polymers; 2.4.2.1  
 Concentration and Shear Rate; 2.4.2.2 Filler Size and Shape; 2.4.2.3  
 Filler Surface Treatments; 2.4.3 Processing/Structure/Property  
 Relationships; References; 3 Mixing of Fillers with Plastics; 3.1  
 Introduction; 3.2 Pretreatment of Fillers; 3.3 Feeding; 3.4 Melting; 3.5  
 Solids Introduction and Mixing; 3.6 Venting  
 3.7 Pressure Generation 3.8 Process Examples; 3.9 Further Information;  
 References; Part Two: Surface Modifiers and Coupling Agents; 4 Silane  
 Coupling Agents; 4.1 Introduction; 4.2 Production and Structures of  
 Monomeric Silanes; 4.3 Silane Chemistry; 4.4 Types of Silanes; 4.4.1  
 Waterborne Silane Systems; 4.4.2 Oligomeric Silanes; 4.5 Silane  
 Hydrolysis; 4.6 Reactivity of Silanes Toward the Filler; 4.7 Combining  
 Silanes and Mineral Fillers; 4.7.1 Method I; 4.7.2 Method II; 4.7.3  
 Method III; 4.7.4 Method IV; 4.8 Insights into the Silylated Filler  
 Surfaces; 4.8.1 Spectroscopy  
 4.8.1.1 FTIR/Raman Spectroscopy 4.8.1.2 MAS-NMR Spectroscopy;  
 4.8.1.3 Auger Electron Spectroscopy; 4.8.2 Pyrolysis-Gas  
 Chromatography; 4.8.3 Carbon Analysis; 4.8.4 Colorimetric Tests; 4.8.5  
 Acid-Base Titration; 4.8.6 Analytical Tests for Hydrophobicity; 4.8.7  
 Silane/Colorant Combined Surface Modification; 4.9 Selection of  
 Silanes; 4.10 Applications of Specific Silanes; 4.10.1 Vinylsilanes;  
 4.10.2 Aminosilanes; 4.10.2.1 General; 4.10.2.2 Calcined Clay-Filled  
 Polyamides; 4.10.2.3 ATH-Filled EVA; 4.10.2.4 MDH-Filled  
 Polypropylene; 4.10.3 Methacryloxysilanes; 4.10.3.1 General  
 4.10.3.2 Filled PMMA Resin Systems

## Sommario/riassunto

A comprehensive and up-to-date overview of the major mineral and organic fillers for plastics, their production, structure and properties, as well as their applications in terms of primary and secondary functions. Edited and co-authored by Professor Marino Xanthos with contributions by international experts from industry and academia, this book presents methods of mixing/incorporation technologies, surface treatments and modifications for enhanced functionality, an analysis of parameters affecting filler performance and a presentation of current and emerging applications. Additionally, the nov

2. Record Nr.	UNINA9910694581903321
Titolo	Annual report
Pubbl/distr/stampa	[Washington, D.C.], : [ONDCP High Intensity Drug Trafficking Area Program]
Descrizione fisica	2 volumes : digital, PDF files
Disciplina	364
Soggetti	Drug control - California - San Diego County Drug control - California - Imperial County Federal aid to law enforcement agencies - California - San Diego County Federal aid to law enforcement agencies - California - Imperial County Drug traffic - California - San Diego County - Prevention Drug traffic - California - Imperial County - Prevention Drug control Federal aid to law enforcement agencies Periodicals. California Imperial County California San Diego County
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico