## <<塑料、弹性体及复合材料手册>>

#### 图书基本信息

书名: <<塑料、弹性体及复合材料手册>>

13位ISBN编号:9787506214582

10位ISBN编号:750621458X

出版时间:1999-10

出版时间:世界图书出版公司北京公司

作者: C.A.Hauper 著

版权说明:本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com

## <<塑料、弹性体及复合材料手册>>

#### 内容概要

In recent years, the development of new and improved polymers and their application in new and improved products have led to almost unlimited product opportunities. In fact, there are probably few who would not rate this area of product growth as one of the most important industry growth areas. The impact of polymers--plas-tics, elastomers, and composites--in all of their material forms has been little short of phenomenal. New polymers and improvements in established polymer groups regularly extend the performance limits of plastics, elastomers, and composites. These achievements in polymer and plastic technology offer major benefits and opportunities for the myriad of products in which they can be used. With all of these achievements, however, a major impediment exists to the suc cessful use of plastics, elastomers, and composites in products. This impediment is the lack of fundamental understanding of plastics, elastomers, and composites by product designers. Along with this lack of understanding is the absence of a useful consolidated source of information, data, and guidelines that can be practically used by product designers, most of whom do not "speak plastics." The usual practice is to use random supplier data sheets and data tables for guidance. It is, therefore, the object of this handbook to present, in a single source, all of the fundamental infor-mation required to understand the large number of materials and material forms, and to provide the necessary data and guidelines for optimal use of these materials and forms in the broad range of industry products. At the same time, this handbook will be invaluable to the plastics industry in acquainting its specialists with product requirements for which they must develop, manufacture, and fabricate plastic mate-rials and forms.

### <<塑料、弹性体及复合材料手册>>

#### 书籍目录

ContributorsPrefaceChapter 1. Fundamentals of Plastics and Elastomers 1.1 Introduction 1.2 The Nature of Plastics 1.3 Polymer Structures and Polymerization Reactions 1.4 Plastic-Processing Methods and Design Guidelines 1.5 Plastic Properties 1.6 Thermosetting Plastics 1.7 Thermoplastics 1.8 Glass-Fiber-Reinforced Thermoplastics 1.9 Plastic Films and Tapes 1.10 Plastic Surface Finishing 1.11 Summary of Plastics 1.12 The Nature of ElastomersReferencesChapter 2. Laminates and Reinforced Plastic Materials and Processes 2.1 Laminates 2.2 Reinforced Plastics 2.3 Manufacturing Processes for Reinforced Plastics 2.4 StandardsReferencesChapter 3. Advanced Composite Materials and Processes 3.1 Introduction 3.2 Material Systems 3.3 Composite Fabrication Techniques 3,4 Overview of Mechanics of Composite Materials 3.5 Design of Composites 3.6 Composite Testing \_ 3.7 Safety Issues with Composite MaterialsReferencesChapter 4. Liquid and Low-Pressure Resin Systems 4.1 Introduction 4.2 Epoxies 4.3 Polyesters 4.4 Polyurethanes 4.5 Silicones 4.6 Cast Phenolics 4,7 Allylic Resins 4.8 Polybutadienes 4.9 Depolymerized Rubber4.10 Polysulfide Rubber4.11 Ethylene-Propylene Liquid Polymers / 4.584.12 Cast Nylon4.13 Acrylics4.14 Vinyl Plastisols4.15 Cyclic Thermoplastics 4.16 Expanding Monomer 4.17 Vinyl Esters 4.18 Cyanate Esters 4.19 PhotopolymersReferencesChapter 5. Thermoplastic Elastomers 5.1 Introduction 5.2 TPEs in the Rubber and Plastics Industries 5.3 Comparison of TPEs and Thermoset Rubbers 5.4 Chemistry, Morphology, and Properties of TPEs 5.5 Generic Classes of TPEs 5.6 Processing of TPEs 5.7 Applications and Markets for TPEs 5.8 The Recovery and Recycle of TPEs 5.9 AcknowledgmentsReferencesChapter 6. Protective and Decorative Coatings 6.1 Introduction 6.2 Ecology 6.3 Surface Preparation 6.4 Coating Selection 6.5 Coating Materials 6.6 Application Methods 6.7 Curing 6.8 SummaryReferencesChapter 7. Joining of Plastics, Elastomers, and Composites 7.1 Introduction 7.2 Design of Joints 7.3 Test Methods......Chapter 8. Plastics in Packing Chapter 9. Elastormers and Engingeeting Thermoplastics for Automotive Applications Chapter 10. Desing and Processing of Plastic PartsChapter 11.Pecycling Of Plastic MaterialsAppendix A.Glossary of Terms and DefinitionsAppendix B.Some Common Abbrevistions Ueed in the plastics IndustryAppendix C.Important Properties for Designing with PlasticsAppendix D. Electrical Properties of Resing and CompoundsAppendix E. Electrial Propertics of Specififcations and Standards for Plastics and Composites

# <<塑料、弹性体及复合材料手册>>

#### 版权说明

本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com