The Complete Book on Medical Plastics

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Plastics currently form one of the most important components of the medical industry. Medical device designers and engineers increasingly prefer plastics to conventional packaging materials such as metals owing to superior flexibility offered by plastics in fabrication process. Advancements in sterilization techniques shift towards disposable devices, development of enhanced plastic materials, and technological innovations are factors driving the overall market growth and expansion. The development of novel materials such as biocompatible polymers for use in medical implants will furthermore provide the required impetus for the global medical plastics market. Every day, plastics are involved in critical surgeries, life saving efforts, and routine medical procedures. Plastic materials can be sterilized hundreds of times without degradation. Lightweight plastics are used to form replacement joints, non surgical supports, and therapy equipment. Clear plastics provide visibility for transfusions, surgeries, and diagnostic equipment of all kinds and plastics can be machined, molded, or formed into almost any shape imaginable. The use of plastics in health care field encompasses several distinct markets. Plastic is used on a large scale as medical devices like disposable syringes, optical and dental products, heart valves, contact lenses and many more medical products. This way plastic has very importance in making medical devices. The medical plastics industry is set to expand rapidly over the next decade taking up increasing proportions of GDP, as countries provide healthcare to an ageing population, access to medicine expands in developing regions and new technology is developed.

This book basically deals with significance of packaging for pharmaceuticals & medical industry, tablets & capsules liquids, creams and ointments, OPVC, OPP and oriented and non oriented pet containers, blister trays for ampoules, cartridge tubes etc., shrink packaging and stretch wrapping, conducting health based risk assessments of medical materials, performance properties of metallocene polyethylene, EVA, and flexible PVC films, polyurethane thin film welding for medical device applications, polyurethane film as an alternative to PVC and latex, opportunities for PVC replacement in medical solution containers, thermoplastic silicone urethane copolymers : a new class of biomedical elastomers, selecting materials for medical products : from PVC to metallocene polyolefins, injection molding engineering plastics, assessing the performance and suitability of parylene coating etc.
The present book contains the important information of plastics in medical field and their uses in various ways. This is very useful book for entrepreneurs, researchers, technocrats and technical institutions.

1. SIGNIFICANCE OF PACKAGING FOR PHARMA & MEDICAL INDUSTRY
Tablets & Capsules
Liquids
Creams and Ointments
Labels
Caps & Closures
Wadding Materials
Specific New Systems
Opvc, Opp and Oriented and Non-oriented Pet Containers
Blister Trays For Ampoules, Cartridge Tubes Etc.
Single-serve/Unit Dose Packages (Laminates of PPR, Plastics and Foil)
The Delcap Metered-dose
Form, Fill, Sealing of Plastic Bottles Under Aseptic Condition
Radiation Resistant PP Bottles
Double Derker Spray-aerosol
Single Dose Blister-break Open Packs
Capped Gabletop Cartons
Refillable, Reusable and Recycliable Aerosols
Shrink Packaging and Stretch Wraping
Bulk Drug and Fine Chemicals
Packaging of Medical Devices
Materials & Technologies
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Product Performance
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Light-Activated Surface Modificationâ€”BSI Corp. (Eden Prairie, MN).
Plasma Surface Engineeringâ€”Talison Research (Sunnyvale, CA).
Antimicrobial/Antibiotic Coatingsâ€”STS Biopolymers, Inc. (Henrietta, NY).
Thromboresistant (Heparin) Coatingsâ€”Baxter Healthcare Corp. (Irvine, CA).

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Susan Wallace
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Susan Wallace

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Our Detailed Project report aims at providing all the critical data required by any entrepreneur vying to venture into Project. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.

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