Manufacturing, Processing and Application of Polymers (Fabricating and Processing

Description:

Manufacturing, Processing and Application of Polymers (Fabricating and Processing Molding, Modified Natural Products, Synthetic Condensation Products, Synthetic Addition Products, Powder Technology for Coating of Plastics, Acrylic and Polyurethane Dispersions in Industrial Coatings for Plastics)

Polymers are the most rapidly growing sector of the materials industry. No wonder polymers are found in everything from compact discs to high tech aerospace applications. The Indian plastic and polymer industry has taken great strides. In the last few decades, the industry has grown to the status of a leading sector in the country with a sizable base. The material is gaining notable importance in different spheres of activity and the per capita consumption is increasing at a fast pace. Continuous advancements and developments in polymer technology, processing machineries, expertise and cost effective manufacturing is fast replacing the typical materials in different segments with plastics. Monomers and polymers are of little or no practical use until the raw product from the manufacturing process been transformed by more or less standardized fabrication and processing techniques into useful forms. There are different methods of processing of polymers for solid; molding, extrusion, calendaring, sheet forming, laminating and impregnating and for liquids and melts; coating, expanding or foaming, casting, spinning, laminating and impregnating. Plastics are divided into thermosetting and thermoplastic materials. Compression and transfer molding are the two main methods used to produce molded parts from thermosetting plastics; however, injection molding is under development and may become important in future. Plastic foams are from a wide variety of polymers have a wide range of applications and are made by a variety of methods depending upon the polymer and the application. Elastomers are indispensable to our modern civilization, without them two of largest industries; transportation and electrical, would never have attained their present state of development. The reason why plastics are popular is that they may offer such advantages as transparency, self lubrication, light weight, flexibility, economy in fabricating and decorating. Properties of plastics can be modified through the use of fillers, reinforcing agents and chemical additives. Polymer Energy system is an award winning, innovative, proprietary process to convert waste plastics into renewable energy. On the basis of value added, Indian share of plastic products industry is about 0.5% of national GDP.

Polymers are classified into thermoplastics and thermosettings. Thermoplastics include elastomers (unvulcanised), polyvinyl chloride (PVC), polyethylene (PE), polystyrene (PS), polyurethane (PU) and other resins. Thermosettings include elastomers (vulcanised), polyethylene (crosslinked), phenolics, alkyds, polyesters.

For more details download PDF file.

Keywords: Acrylic and Polyurethane Dispersions in Industrial Coatings for Plastics, Application of polymer chemistry, Applications and processing of polymers, Best small and cottage scale industries, Book on polymer technology, Business guidance for polymer processing, Business guidance to clients, Business Plan for a Startup Business, Business start-up, Fabricating and Processing Molding, Fabrication and processing of polymer, Great Opportunity for Startup, How are polymers made?, How Plastics Are Made,

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