

AMPL16 THERMOPLASTICS POLYMER TECHNOLOGY

UNIT-1 POLYETHYLENES;

- 1.1 Modified polyethylenes,
- 1.2 Polypropylene and copolymer of PP,
- 1.3 Modified Polyolefins like crosslinked & filled polyolefins,
- 1.4 Polyisobutylene & polyolefin plastomers etc.
- 1.5 Engineering Polymers Polyesters such as PET, PBT, PTT, Polycarbonates, and Polyacetal etc.

UNIT-2 STYRENIC POLYMERS

- 2.1 Polystyrene, HIPS, SAN, ABS,
- 2.2 Important copolymers of styrene maleic anhydride and styrene acrylics copolymers, toughening mechanism of impact modified plastics.
- 2.3 Polymamides- Nylon 6, Nylon 6,6, Nylon 11,
- 2.4 Aromatic polyamide such as Kevlar
- 2.5 Acrylic polymers & copolymers,
- 2.6 Polyacrylamide, PMMA, ASA, Polyacrylonitrile etc.

UNIT-3 POLYVINYL CHLORIDE & ITS COPOLYMERS

- 3.1 Poly vinyl acetate, Polyvinyl alcohol etc.
- 3.2 Modified cellulosic:
- 3.3 Cellulose esters and ethers such as Ethyl cellulose, CMC, HPMC, cellulose acetals etc.
- 3.4 Liquid crystalline polymers;
- 3.5 Specialty plastics- PES, PAES, PEEK, PEAK etc.
- 3.6 Developments in new polymers such as dendrimers,
- 3.7 Biopolymers & biodegradable polymers, thermoplastic PU etc.

Reference book:

1. Handbook of Engineering and Specialty Thermoplastics, Volume 2: Water Soluble Polymers Kindle Edition by Johannes Karl Fink (Author) Format: Kindle Edition