

19MSPS307 POLYMER BLENDS AND ALLOYS

Definition, classification and importance of polymer blends and alloys, copolymer vs. polyblends and alloys; concept of polymer miscibility, thermodynamics of polyblends,

Interchain forces in polyblends, interpenetrating polymer network in polyblends, morphology and phase separation,

Preparation, processing and properties, characterization techniques, rheology of polyblends and alloys,

Applications of polyblends and alloys in adhesives, molded products, footwear, films, fibers, tyres and tubes, surface coatings, wire and cable compounds, belting and hoses, miscellaneous uses, current trends in polyblends and alloys technology.

Text Book:

1. Polymer Blends & Alloys- An Overview: RP Singh,CK Das, S.K. Mustafi, Asian Books Published 1st ed.2002.
2. Polymer Blends & Alloys: Folkes& Hope Blackie Academic Professional 1993.
3. Advances in Polymer Blends & Alloys Technology by Malvyn Kohudic,Technomic,1988
4. L.A. Utracki, Commercial polymer Blends, Chapman & Hall, Landon 1998
5. D.R. Paul & Seymour Newman, Polymer Blends, Vol.1 & 2,Academic Press, New York,1978
6. Chris Rauwendaal, Polymer Mixing A self study guide, Hanser Publication