

# AMPTE23 ADDITIVES AND COMPOUNDING

## UNIT-1 FILLERS

- 1.1 Antioxidants-Thermal Stabilisers,
- 1.2 Ultraviolet stabilizer.
- 1.3 Colourants- Fire retardants- Coupling agents-blowing-agents-

## UNIT-2 PLASTICISERS

- 2.1 Toughening-agents- Antistatic agents
- 2.2 Anti-blocking agents-Slip and antislip agents-processing aids
- 2.3 Lubricants- mould releasing agents.

## UNIT-3 COMPOUNDING

- 3.1 Selection of polymers and compounding-ingredients-general objectives-possibilities and limitation of additives into polymer matrices.
- 3.2 Mixing and mixing equipment's.

## UNIT-4 MACHINE CONSTRUCTION

- 4.1 Specifications- temperature control system
- 4.2 Operating characteristics
- 4.3 Housekeeping and maintenance of compounding machines.

## UNIT-5 CASE STUDIES

- 5.1 On preference of one plastics to other and co-relation of properties of conventional materials and blends and alloys
- 5.2 Case studies on application of blends and alloys.

## References Books:

1. Hand Book of Plastics Test Methods by Brown R.P.
2. Mascia; L.,The Role of Additives in Plastics, Edward Arnold Publishers Ltd., U. K. (1974).
3. Murphy; John, Additives for Plastics Handbook, 2nd Edition, Elsevier Advanced Technology, Oxford.