

C-8 SCIENCE WK-3

CHAPTER-3

SYNTHETIC FIBRES AND PLASTICS

A synthetic fibre is a chain of small units joined together. Each unit is called monomer. The process by which monomers combine to form a polymer is called polymerization.

Many of the substances in living organisms are polymers. Cellulose, for example, is a polymer of glucose, while haemoglobin is formed by amino acids, the building blocks of all proteins. Synthetic fibres are used for making clothes and many other useful things. They may be synthetic or semisynthetic. Semisynthetic fibres, like rayons are made by using natural polymers as the starting material. Purely synthetic fibres, on other hand, are made from chemicals. Polyesters, nylons and acrylics are synthetic fibres.

Advantages of Synthetic fibres

- 1) Synthetic fibres do not depend either on an agricultural crop or on animal farming.
- 2) The fabrics made of synthetic fibres are easily heat-set i.e they retain the fold or pleat made on them by ironing even after washing.
- 3) They are much stronger, more durable than natural fibres. They dry easily and cheaper than natural fibres.

Disadvantages of Synthetic fibres

- 1)Synthetic fibres melt before burning. Therefore, they should not be worn in the kitchen.
- 2) They are hydrophobic, i.e they repel moisture(e.g.,sweat) and do not absorb it.
- 3) Some electrical charge accumulates on synthetic fibres due to which they cling together as well as to the skin.