



Origination of plastics

Plastic was discovered by famous German chemist Christian Schonbein in 1846. Plastics were actually discovered accidentally. Christian was experimenting in his kitchen and by accident he spilt a mixture of nitric acid and sulphuric acid. To mop that solution (mixture of nitric and sulphuric acid) he took a cloth and after moping he kept it over the stove. After sometime, the cloth disappeared and from there plastic got its name.

Introduction: Plastic

The word, plastic, was derived from the word 'Plastikos' meaning 'to mould' in Greek. Plastic is defined as polymers of long carbon chains. Carbon atoms are linked in chains and are produced in long molecules. Fossil fuels have compounds containing hydrogen and carbon (hydrocarbon) which act as building blocks for long polymer molecules. These building blocks are known as monomers, they link together to form long carbon chains called polymers. Depending on physical properties, plastics are divided into two types: Thermoplastic and thermosetting.

Thermoplastic: Plastics that can be deformed easily upon heating and can be bent easily. Linear polymers and combination of linear and cross linked polymers come under thermoplastics. Example: PVC, nylon, polythene, etc.

Thermosetting: Plastics that cannot be softened again by heating once they are molded. Heavily cross-linked polymers come under the category of thermosetting plastics. Example: Bakelite, melamine, etc. Bakelite is used for making electrical switches whereas melamine is used for floor tiles.

Recycling of plastic

Recycling of plastic is very important. If they are not recycled at proper time, then they get mixed with other chemicals or materials, and hence become more difficult to recycle and become a source of pollution. They are non-biodegradable and they do not get decomposed by the microbial action. To avoid this, it is important to use bio polymers or biodegradable polymers.

Properties of plastic

Strong and ductile

Poor conductors of heat and electricity

Easily molded into different shape and size

Resist corrosion and are resistant to many chemicals.

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