

SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)



Teflon (Poly tetra fluoro ethylene):

It is obtained by polymerization of water emulsion of tetra fluoro ethylene under pressure in the presence of benzoyl peroxide

Polymerization $nCF_2 = CF_2 \longrightarrow -(CF_{2-}CF_2)_n -$ Benzoyl peroxide Tetra fluoro ethylene Poly tetra fluoro ethylene

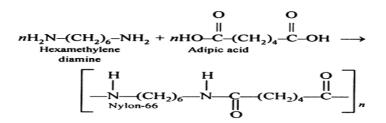
Properties:

Teflon is extremely tough, flexible and the softening temperature is about 350 C. It has high chemical resistance towards all chemicals except hot alkali metal and hot fluorine. It has good electrical and mechanical properties. It shows good thermal stability.

Uses: A good insulating material (for motors, transformers, cables, wires, fittings etc.) It is also used for making gaskets, packagings, pump parts, tank linings etc.

Nylon 6,6:

It is prepared by the condensation polymerization of adipic acid and hexamethylene diamine in the absence of air.



Properties:

Nylon 6,6 can be converted into nylon fibre. It acts as a good plastic material when properly moulded. Both as a fibre and as a plastic Nylon 6,6 has high strength, elasticity, toughness, abrasion resistance and good mechanical properties. Its softening temperature is 260 C

Uses: It is used in textile industry for making carpets, under garments

It is used in engineering field for making bearings, gears etc.,