

Polyurethane Foams



- Polyurethane foams are the largest group of urethane products, covering about 80% of the total urethane production.
- The raw materials for making polyurethane foams include :
 - Isocyanate
 - Polyol
 - Water
 - Blowing agent
 - Amine catalyst
 - Metal catalyst
 - Surfactant



Burning behavior of polyurethane foams

PUs are very combustible polymers with a very low limiting oxygen index (LOI) in the range of 16-18%.

Neat PU foams are highly flammable due to their high surface area, good air permeability, and the large aliphatic chain segment content.



Burning behavior of polyurethane foams

On combustion, polyurethane foams produce four types of products :

- Combustible gases
- Noncombustible gases
- Entrained solid particles
- Carbonaceous char

