What is POLIASETAL (POLYALDEHIT)?

Polyoxymethylene (POM) is sometimes called poliformaldehyde or acetal, it is the most important polyacetal. It is a highly crystalline thermoplastic known for its high bending and tensile strength, hardness, hardness and low creep under stress. It also has a low coefficient of friction, excellent chemical resistance and extreme fatigue properties, but only moderate heat stability and insufficient flame resistance.

Because of the low ceiling temperature, the polyaldehydes are often unstable and easily depolymerize at ambient and high temperatures. Thus, many polyaldehyde, such as poly (acetaldehyde) and poly (n-butyraldehyde), have shown little or no commercial use. Polifformaldehyde is an exception; The ceiling temperature is significantly higher than that of all other polyurethanes. The temperature at which DE polymerization takes place can be increased by converting less stable hydroxyl end groups to more stable ester groups, for example with anhydrides. This reaction is called end clogging or end closure. The stability of polyacetals can also be improved by copolymerization with other monomers. The main method is the ring-opening copolymerization of trioxane (ethylene oxide, 1,3-dioxolane) trioxane (cyclic trimer of formaldehyde) with a small amount of cyclic ether.

APPLICATIONS

POM is a high-volume engineering plastic. Yearly production is around half a million tons. It is known for its high dimensional stability, hardness and creep resistance. These characteristics enable POM to be used instead of metal parts. Along with the copolymer resins, it is widely used as an engineering plastic in almost every industry. This includes mechanical, automotive, plumbing, hardware and machine parts, as well as electronic and electrical components. Some examples; machine parts such as gears, bearings, pulleys, conveyor chains, pumps and filter housings, air flow valve fittings and valves; in the transportation industry, such as fuel pump and filter housings, cooling fan parts, fuel caps, door handles, steering column - gear shift devices, sunroof cranks, windscreen wiper clips and windscreen washer nozzles; household appliances and appliances such as food mixer parts, water jet nozzles, shower heads, furniture joints and drawer rails, parts of espresso and coffee machines, knives and tool grips.


POM1


POM2


POM3


POM4