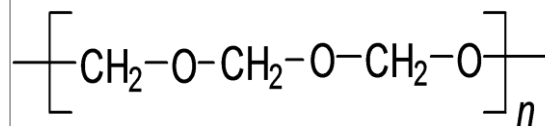


Polyoxymethylene (POM with proprietary additives)



SPECIFICATIONS

Property	Condition	Spec	Value
Color			Brown
Density			1.5 g/cm³
Modulus of elasticity (tensile test)	@ 73°F	ASTM D 638	310,000 psi
Tensile strength at yield	@ 73°F	ASTM D 638	8100 psi
Elongation at yield	@ 73°F		10.3%
Flexural strength	@ 73°F	ASTM D 790	12,700 psi
Modulus of elasticity (flexural test)		ASTM D 790	485,000 psi
Compression strength	@73°F, 10% strain @73°F, 1% strain	ASTM D 695	12,500 psi 1,200 psi
Compression modulus	@ 73°F	ASTM D 695	250,000 psi
Impact strength (Izod)	@ 73°F	ASTM D 256	1.0 ft-lbs/in
Rockwell hardness	M Scale	ASTM D 785	79
Melting temperature			347°F
Deflection temperature	@264 psi @66 psi	ASTM D 648	244°F 334°F
Service temperature	Intermittent Long Term		300°F 185°F
Moisture absorption	@24 hrs, 73°F	ASTM D 570	0.12%

DESCRIPTION

ML30 is a POM material with hardness 79M, specially compounded for high load and wear applications. Acetal or Polyoxymethylene (POM) belongs to the polyether family which contains carbon-oxygen-carbon (-C-O-C-) ether linkages in the polymer backbone. Acetal or POM refers to the polyether with only one carbon (methylene) in between ether linkages. To improve its low thermal stability for commercial use, POM has to be chemically modified by one of two means. The first is to modify the ends of polymer chains to yield the corresponding POM homopolymer (POM-H). The second method is to add 1%-2% ethylene oxide to the polymer chain that results in POM copolymer (POM-C). POM possesses a simple regular backbone, thus it is a highly crystalline polymer. This chemical and morphological structure leads to high mechanical strength, low moisture absorption, high dimensional stability, and good chemical resistance.