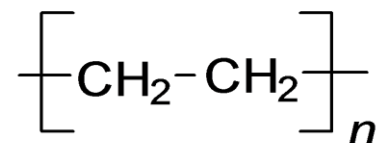


Ultrahigh Molecular Weight Polyethylene (UHMW High Temperature)

SPECIFICATIONS

Property	Spec	Value
Specific Gravity	ASTM D792	0.94 g/cc
Water Absorption (Immersion, 24hrs.)	ASTM D570	Max 0.01%
Hardness, Shore D	ASTM D2240	68
Tensile Strength, Ultimate	ASTM D638	40 Mpa
Elongation at Break	ASTM D638	300%
Tensile Modulus	ASTM D638	0.689 Gpa
Flexural Modulus	ASTM D790	0.758 Gpa
Flexural Yield Strength	ASTM D790	24.1 Mpa
Compressive Strength 10% Def., 73 degF	ASTM D695	20.7 Mpa
Shear Strength	ASTM D732	33.1 MPa%
Coefficient of Friction Dry vs. Steel	QTM 55010	0.12
Melting Point, Crystalline, Peak	ASTM D3418	135 C
Max. Service Temperature, Air	Long Term	135 C
Deflection Temperature @ 1.8 Mpa (264psi)	ASTM D648	46.7 C



DESCRIPTION

ML38 is a UHMW material with hardness 68 Shore D, specially compounded for high temperature applications. Ultrahigh Molecular Weight Polyethylene (UHMWPE) has simple and linear carbon-carbon polymer backbone but with molecular weight reaching several millions. This chemical structure makes UHMWPE highly crystalline, thus it offers high tensile strength and dimensional stability even at high pressures. The most outstanding known properties of UHMWPE are wear/abrasion resistance along with chemical resistance to aqueous and hydrocarbon solvents. UHMWPE has a very low coefficient of friction (much lower than nylon and acetal), good toughness and fatigue resistance.