

ML13

$$\left\{ CH_2 - CH_2 \right\}_n$$

Ultrahigh Molecular Weight Polyethylene (UHMW Moly Filled)

SPECIFICATIONS

Property	Spec	Value
Density	ASTM D-792	58.63 lbs/ft³
Yield Point	ASTM D-638	2770 PSI
Elongation at Yield	ASTM D-638	15%
Tensile Break	ASTM D-638	4815 PSI
Elongation at Break	ASTM D-638	200%
Tensile Modulus	ASTM D-638	118643 PSI
Flexural Modulus	ASTM D-790	106459 PSI
Tensile Impact	DIN 53448	653 ft-lbs/in²
Hardness	ASTM D-2240	68 Shore D
Static Friction	ASTM D-1894	0.16
Dynamic Friction	ASTM D-1894	0.08
Coefficient of Thermal Expansion	ASTM D-696	0.00011 °F ⁻ '
Compressive Modulus	ASTM D-695	79917 PSI
Melt Point	ASTM D-3417	278-289 °F
Water Absorption	ASTM D-570	nil %

DESCRIPTION

ML13 is a UHMW material with hardness 68D, specially compounded moly filled. 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.