



Typical Properties of

**UHMW****Ultra High Molecular Weight Polyethylene**

Process: Compression Molded

Property	Test Method	Unit	Value
Specific Gravity	D792	--	0.93
Tensile Strength	D638	psi	5,800
Tensile Modulus	D638	psi	100,000
Elongation	D638	%	300
Flexural Strength	D790	psi	3,500
Flexural Modulus	D790	psi	110,000
Compressive Strength	D695	psi	3,000
Compressive Modulus	D695	psi	80,000
Hardness, Rockwell	D785	--	R56
Hardness Durometer	--	--	D66
Izod Impact (notched)	D256	ft. lb of notch	No Break
Coeff. of Friction (Dynamic)	--	dry v.s steel	0.12
Coeff. of Linear Therm. Expan.	E831/ D696	in./in./°F	11.0 x 10 <sup>-5</sup>
Continuous Use Temperature	--	°F	180
Heat Deflection Temperature	D648	°F	116
Glass Transition Temperature	D3418	°F	115
Melting Point	D3418	°F	275
Thermal Conductivity	E1530-11	BTU in/hr ft <sup>2</sup> °F	2.84
Dielectric Strength	D149	Volts/mil	525
Surface Resistivity	EOS/ESD 511.11	ohm/square	>10 <sup>15</sup>
Flammability	UL94	--	HB
Water Absorption, 24 hrs.	D570	% by weight	<.01
Water Absorption, Saturation	D570	% by weight	<.01
Limiting PV (4:1 Safety Factor)	--	--	2,000
K-Factor	--	--	125
FDA Compliance	--	--	Yes

Note: The data provided is for reference purposes only. Additional testing may be required for design specifications or quality control.  
All values at 73 F unless otherwise stated.