

TYPICAL PROPERTIES of POLYETHYLENE				
ASTM or UL test	Property	LDPE	HDPE	UHMW
PHYSICAL				
D792	Density (lb/in ³) (g/cm ³)	0.033 0.92	0.035 0.95	0.034 0.93
D570	Water Absorption, 24 hrs (%)	<0.01	0	0
MECHANICAL				
D638	Tensile Strength (psi)	1,800-2,200	4,600	3,100
D638	Tensile Modulus (psi)	-	-	125,000
D638	Tensile Elongation at Yield (%)	600	900	-
D790	Flexural Strength (psi)	-	-	-
D790	Flexural Modulus (psi)	-	200,000	125,000
D695	Compressive Strength (psi)	-	-	2,000
D695	Compressive Modulus (psi)	-	-	-
D785	Hardness, Shore D	D41-D50	D69	D62-D66
D256	IZOD Notched Impact (ft-lb/in)	No Break	3	No Break
THERMAL				
D696	Coefficient of Linear Thermal Expansion (x 10 ⁻⁵ in./in./°F)	3	6	11
D648	Heat Deflection Temp (°F / °C) at 66 psi at 264 psi	120 / 48 105 / 36	170 / 76 150 / 40	203 / 95 180 / 82
D3418	Approx. Melting Temperature (°F / °C)	230 / 110	260 / 125	280 / 138
-	Max Operating Temp (°F / °C)	160 / 71	180 / 82	180 / 82
C177	Thermal Conductivity (BTU-in/ft ² -hr-°F) (x 10 ⁻⁴ cal/cm-sec-°C)	- -	- -	2.92 10.06
UL94	Flammability Rating	n.r.	n.r.	H-B
ELECTRICAL				
D149	Dielectric Strength (V/mil) short time, 1/8" thick	-	-	900
D150	Dielectric Constant at 50 kHz	-	-	2.3
D150	Dissipation Factor at 50 kHz	-	-	0.0002
D257	Volume Resistivity (ohm-cm) at 50% RH	-	-	>5 x 10 ¹⁶
D495	Arc Resistance (sec)	-	-	-

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets.
All values at 73°F (23°C) unless otherwise noted.