

# LDPE



Physical Properties	Nominal Value	Test Method
Density / Specific Gravity	0.907 to 0.945 g/cm <sup>3</sup>	ASTM D792
Apparent (Bulk) Density	0.33 to 0.55 g/cm <sup>3</sup>	ISO 60

Mechanical Properties	Nominal Value	Test Method
Tensile Modulus	130 to 350 MPa	ASTM D638
Tensile Strength		
Yield	6.84 to 14.2 MPa	ASTM D638
Break	5.94 to 17.0 MPa	ASTM D638
Tensile Elongation		
Yield	3.0 to 110 %	ASTM D638
Break	88 to 710 %	ASTM D638
Apparent Bending Modulus	117 to 242 MPa	ASTM D747
Flexural Modulus	20.0 to 281 MPa	
Flexural Strength	4.71 to 9.97 MPa	ASTM D790
Coefficient of Friction	0.098 to 1.0	ASTM D1894

Impact Properties	Nominal Value	Test Method
Notched Izod Impact		
--	340 to 620 J/m	ASTM D256
--	5.0 to 51 kJ/m <sup>2</sup>	ISO 180
Tensile Impact Strength	73.6 to 470 kJ/m <sup>2</sup>	ASTM D1822

Thermal Properties	Nominal Value	Test Method
Deflection Temperature Under Load		
0.45 MPa, Unannealed	38.7 to 86.3 °C	ASTM D648
0.45 MPa, Unannealed	42.0 to 51.1 °C	ISO 75-2/B
Brittleness Temperature	-78.6 to -67.2 °C	ASTM D746
Vicat Softening Temperature		
--	82.9 to 102 °C	ASTM D1525
--	87.6 to 98.8 °C	ISO 306
Melting Temperature		
--	102 to 115 °C	DSC
--	104 to 114 °C	ISO 11357-3
--	104 to 114 °C	ISO 3146
--	104 to 113 °C	ASTM D3418

Electrical Properties	Nominal Value	Test Method
Surface Resistivity	1.0E+5 to 2.5E+12 ohms	ASTM D257
Volume Resistivity		
--	1.0E+3 to 1.0E+17 ohms-cm	ASTM D257

--	10 to 1.3E+16 ohms-cm	IEC 60093
<b>Dielectric Strength</b>		
--	20 to 30 kV/mm	ASTM D149
--	20 to 22 kV/mm	IEC 60243-1
<b>Dielectric Constant</b>		
--	2.28 to 2.30	ASTM D150
--	2.25 to 2.28	ASTM D1531
--	2.28 to 2.50	IEC 60250
<b>Dissipation Factor</b>		
--	4.0E-5 to 1.0E-3	ASTM D150
--	1.4E-4 to 3.0E-4	ASTM D1531
--	4.0E-5 to 6.4E-4	IEC 60250

The information provided in this datasheet is based upon average values and is intended for guidance purposed only. Vital Parts assumes no responsibility or liability for the accuracy of the information contained on this datasheet. Product samples are available for the to determine the suitability of the product for any application.