

LDPE (Low Density Polyethylene)

LDPE is more flexible than HDPE, which makes it a good choice for prosthetic devices, most of which are either drape formed or vacuum formed. Its impact resistance makes it a natural for impact pads, while its easy machinability makes it a good choice for fabricated parts where chemical and corrosion resistance is demanded.

- Lightweight
- Good impact resistance
- Extremely flexible
- Easily cleaned
- Thermoforming performance
- Meets food handling guidelines
- No moisture absorption
- Chemical- and corrosion-resistant

Applications:

- Die Pads
- Hinges
- Impact pads
- Orthotic and Prosthetic devices
- Thermoformed parts

Property	Test Method	Units	LDPE
Physical			
Density	ASTM D-792	lbs/ft ³	57.39
Water Absorption	ASTM D-570	%	slight
Mechanical			
Yield Point	ASTM D-638	psi	1,363
Tensile Break	ASTM D-638	psi	1,943
Elongation at Break	ASTM D-638	%	515
Tensile Modulus	ASTM D-638	psi	41,615
Flexural Modulus	ASTM D-790	psi	28,565
Flexural Strength	ASTM D-790	psi	1,175
Izod Impact	ASTM D-4020	ft-lbs/in	No Break
Tensile Impact	DIN 53448	ft-lbs/in ²	401
Hardness	ASTM D-2240	Shore D	55
Thermal			
Melt Point	ASTM D-3417	°F	230
Heat Deflection 264 psi	ASTM D-668	°F	98
66 psi		°F	110
Electrical			
Volume Resistivity	ASTM D-257	ohm-cm	>10 ¹⁵
Surface Resistivity	ASTM D-257	ohm/square	>10 ¹⁵

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.