

LDPE

Soft, flexible, lightweight plastic material that is easy to fabricate and form



LDPE (low density polyethylene) is a soft, flexible, lightweight plastic material. It is often used for orthotics and prosthetics. LDPE has good chemical and impact resistance and is easy to fabricate and form.

LDPE Material Options

LDPE Sheet Stress Relieved – offers improved machinability and dimensional stability over extruded LDPE.

FDA Compliant LDPE – LDPE is available in FDA compliant grades.

LDPE Sheet for O&P – Low Density Polyethylene is more flexible than HDPE, polypro, or copoly PP, making it an excellent choice for pediatric AFOs, some splints, and flexible socket interfaces.

Modified LDPE Sheet for O&P – Modified polyethylene is slightly stiffer than LDPE, but more flexible than HDPE, polypro, or copoly PP. It is used for applications where flexibility and light support are required.

LDPE is widely used for:

- Orthotics
- Prosthetics

Performance characteristics:

- Soft and pliable
- Easy to weld and heat seal
- Good chemical resistance
- Low moisture absorption

Common brands:

- Orthoform®
- Densetec
- TECAFINE®

Available in:



Sheet

Rod

TYPICAL PROPERTIES OF LDPE

	UNITS	ASTM TEST	LDPE
Tensile strength	psi	D638	1,400
Flexural modulus	psi	D790	30,000
Izod impact (notched)	ft-lbs/in of notch	D256	no break
Heat deflection temperature @ 264 psi	°F	D648	122
Maximum continuous service temperature in air	°F		-
Water absorption (immersion 24 hours)	%	D570	0.10
Coefficient of linear thermal expansion	in/in/°F $\times 10^{-5}$	D696	-

Values may vary according to brand name. Please ask your Curbell Plastics representative for more specific information about an individual brand.