

# 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 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 Sheet for O&P is widely used for:

- Spinal orthoses
- Upper extremity orthoses
- Flexible prosthetic liners
- AFOs

#### Performance characteristics:

- Soft, pliable & flexible
- Formable
- Easy to weld with heat
- Good chemical resistance
- Low moisture absorption

#### Common brands:

- Orthoform®

## 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/°Fx10 <sup>-5</sup>	D696	-

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