

HDPE

Easy to fabricate, durable, lightweight, low cost, plastic material for orthotics and prosthetics



HDPE (high density polyethylene) is available in sheet for applications that require greater strength and stiffness than LDPE (low density polyethylene).

HDPE for O&P – is somewhat stiffer and tougher than polypro (homopolymer polypropylene) and often used for applications where additional durability and support are required.

- HDPE Sheet for O&P is widely used for:**
- Orthotics and prosthetics – AFOs, KAFOs
 - Spinal orthoses
 - Body jackets
 - Crow boots

- Performance characteristics:**
- Durable and strong
 - Resists cracking
 - Good chemical resistance
 - Easy to fabricate
 - Lightweight

- Common brands:**
- Orthoform®

TYPICAL PROPERTIES OF HDPE

	UNITS	ASTM Test	HDPE
Tensile strength	psi	D638	4,000
Flexural modulus	psi	D790	200,000
Izod impact (notched)	ft-lbs/in of notch	D256	1.3
Heat deflection temperature @ 264 psi	°F	D648	172
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	7.0

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