



## Low Density Polyethylene

Aortha LDPE is a versatile **low density polyethylene** that can be sawn, cut, die cut or pinched. The main characteristic is its flexibility therefore making it ideal for applications where movement has to be considered.

It can be shaped by drape, frame injection, vacuum and pressure moulding techniques.

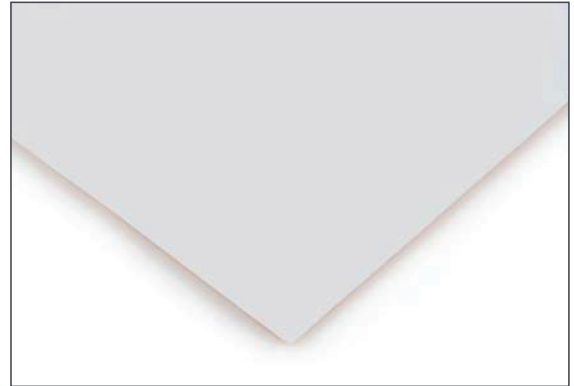
Typical thermoforming temperatures: 130-150°C.

### General features:

- ☒ Flexibility
- ☒ Good impact strength
- ☒ Very low shrinkage
- ☒ Soft to the touch
- ☒ Exceptional stress crack resistance properties

### Applications:

Body Jackets, Wrist splints, Spinal Orthoses, Neck Braces, AFOs, AK/BK Liner Sockets



### Availability: (Sheeting)

Code	Sheet Size	Thickness	Colour
TA0700	2000 x 1000mm	1mm	Natural <input type="radio"/>
TA0701	2000 x 1000mm	1.5mm	Natural <input type="radio"/>
TA0702	2000 x 1000mm	2mm	Natural <input type="radio"/>
TA0703	2000 x 1000mm	3mm	Natural <input type="radio"/>
TA0704	2000 x 1000mm	4mm	Natural <input type="radio"/>
TA0705	2000 x 1000mm	5mm	Natural <input type="radio"/>
TA0706	2000 x 1000mm	6mm	Natural <input type="radio"/>
TA0709	2000 x 1000mm	9mm	Natural <input type="radio"/>

### Availability: (Prosthetic Squares)

Code	Sheet Size	Thickness	Colour
TA3211	305 x 305mm	6mm	Natural <input type="radio"/>
TA3212	305 x 305mm	9mm	Natural <input type="radio"/>
TA3213	343 x 343mm	6mm	Natural <input type="radio"/>
TA3214	343 x 343mm	9mm	Natural <input type="radio"/>
TA3215	406 x 406mm	6mm	Natural <input type="radio"/>
TA3216	406 x 406mm	9mm	Natural <input type="radio"/>

## Material Properties:

Properties	Standard	Unit	PELD
Specific density at 23°C	ISO 1183	g/cm <sup>3</sup>	0.91 - 0.93
Melt flow index	ISO 1183	g/10min	
MFR 190/5	ISO 1133		
MFR 190/2, 16			1.7 - 2.7
MFR 230/5			
Tensile stress at yield	ISO 527	MPa	> 21
Elongation at yield	ISO 527	%	> 9
Elongation at break	ISO 527	%	> 600
Impact strength unnotched at +23°C	ISO 179	KJ/m <sup>2</sup>	no break
Impact strength unnotched at -30°C			no break
Ball indentation hardness acc. Rockwell	ISO 2039-1	MPa	36
Flexural Strength (3.5% flexural stress)	ISO 178	MPa	18
Modulus of elasticity	ISO 527	MPa	750
VICAT-Softening point VST/B/50	ISO 306	°C	63
Heat deflection temperature HDT/B	ISO 75	°C	60
Linear coefficient of thermal expansion	DIN 53752	K <sup>-1</sup> x 10 <sup>-4</sup>	1.8
Thermal conductivity at 20°C	DIN 52612	W/(mK)	0.4
Flammability	UL94	-	94-HB
	DIN 4102		B2
Specific volume resistance	VDE 0303	OHM cm	> 10 <sup>16</sup>
Specific surface resistance	VDE 0303	OHM cm	> 10 <sup>13</sup>
Relative dielectric constant at 1 MHz	DIN 53483	-	2.3
Dielectric strength	VDE 0303	kV/mm	70
Physiologically non-toxic	EEC 90/128	-	Yes
Colour	-	-	Natural/Flesh