

## Polypropylene (Homopolymer)

Aortha PPH is pure **Polypropylene (Homopolymer)** that gives a higher rigidity in thin applications. Polypropylene offers a high strength-to-weight ratio making it stiffer and stronger than Copolymer Polypropylene, and is excellent for use in thermoforming.

PPH can be used to create thinner applications than the PPC however it is more brittle when stressed.

Typical thermoforming temperatures: 180-200°C.

### General features:

- Lightweight
- Good rigidity
- High clarity
- Good impact resistance
- Tough and flexible

### Applications:

KAFOs, AFOs, AK Sockets, Body Jackets



### Availability:

(Sheeting)

Code	Sheet Size	Thickness	Colour
TA0253	2000 x 1000mm	2mm	Natural <input type="radio"/>
TA0250	2000 x 1000mm	3mm	Natural <input type="radio"/>
TA0251	2000 x 1000mm	4mm	Natural <input type="radio"/>
TA0252	2000 x 1000mm	5mm	Natural <input type="radio"/>
TA0256	2000 x 1000mm	6mm	Natural <input type="radio"/>
TA0358	2000 x 1000mm	8mm	Natural <input type="radio"/>
TA0360	2000 x 1000mm	10mm	Natural <input type="radio"/>
TA0362	2000 x 1000mm	12mm	Natural <input type="radio"/>
TA0365	2000 x 1000mm	15mm	Natural <input type="radio"/>

### Availability:

(Prosthetic Squares)

Code	Sheet Size	Thickness	Colour
TA3201	343 x 343 mm	12mm	Natural <input type="radio"/>
TA3202	343 x 343 mm	15mm	Natural <input type="radio"/>
TA3203	406 x 406 mm	12mm	Natural <input type="radio"/>
TA3204	406 x 406 mm	15mm	Natural <input type="radio"/>
TA3205	508 x 508mm	12mm	Natural <input type="radio"/>
TA3206	508 x 508mm	15mm	Natural <input type="radio"/>

## Material Properties:

Properties	Standard	Unit	PELD
Specific density at 23°C	ISO 1183	g/cm <sup>3</sup>	0.90 - 0.93
Melt flow index	ISO 1183	g/10min	
MFR 190/5	ISO 1133		0.5
MFR 190/2, 16			
MFR 230/5			1.1 - 1.5
Tensile stress at yield	ISO 527	MPa	> 28
Elongation at yield	ISO 527	%	> 8
Elongation at break	ISO 527	%	> 250
Impact strength unnotched at +23°C	ISO 179	kJ/m <sup>2</sup>	no break
Impact strength unnotched at -30°C			
Ball indentation hardness acc. Rockwell	ISO 2039-1	MPa	60
Flexural Strength (3.5% flexural stress)	ISO 178	MPa	28
Modulus of elasticity	ISO 527	MPa	1300
VICAT-Softening point VST/B/50	ISO 306	°C	91
Heat deflection temperature HDT/B	ISO 75	°C	96
Linear coefficient of thermal expansion	DIN 53752	K <sup>-1</sup> x 10 <sup>-4</sup>	1.6
Thermal conductivity at 20°C	DIN 52612	W/(mxK)	0.22
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



**algeos**  
Orthotics & Prosthetics

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