

# Aeos™ ePTFE Products

Expanded PTFE Products

## Overview-

Aeos™ ePTFE is produced by mechanically expanding biocompatible PTFE to produce a microporous structure of solid nodes interconnected by fibrils. Thanks to its customizable microporous structure, Aeos™ ePTFE can be used in diverse medical applications, where it minimizes immune response.

Aeos™ ePTFE *microporous membranes and ribbons* excel in applications that demand porosity, flexibility, and strength. Ultra-thin, biaxially stretched membranes favor stent encapsulation while thicker, uniaxially stretched calendared ribbons can be cut or formed to shape for medical implants.

Aeos™ ePTFE *porous tubing* combines tailored porosity with maximum flexibility. Alongside standard sized tubing, Zeus' ultra-thin Aeos™ Sub-Lite-Wall™ tubing and biaxially oriented tubing balance strength with elasticity, making them ideal for stent grafts or endoscope channels.

Aeos™ ePTFE *suture* products are designed to obtain better closure, minimize the immune response, and promote optimal tissue attachment for swift patient healing. Low surface friction and high flexibility allow surgeons to position knots precisely, while Aeos™ ePTFE high strength suture variants deliver nearly three times the USP knot-pull strength as standard ePTFE sutures for improved performance.



*Aeos™ ePTFE products can be customized in many different and complex geometries depending on the application.*

## APPLICATIONS

- Stent coverings
- Implants
- Suturing
- Anastomosis
- Tethering
- Vascular devices
- Endoscopic channels
- Medical equipment
- Femoral vascular closure devices

## AVAILABLE PRODUCTS

- Membranes and ribbons
- Porous tubing
- Sutures, monofilament, high strength monofilament

## KEY PROPERTIES

- Microporous
- Highly customizable
- Biocompatible
- Chemically inert
- Lubricious
- Soft and flexible



CHEMICALLY INERT



BIOCOMPATIBLE



FLEXIBLE



# Aeos™ ePTFE

All Aeos™ ePTFE products are produced based on customer specifications and the charts below are a general capability guide.

Aeos™ ePTFE Tubing Capabilities				
PRODUCT	INSIDE DIAMETER (ID )		WALL	
	Range	Tolerance	Thickness	Tolerance
SUB-LITE-WALL™	0.014" - 0.150" (0.356 mm - 3.810 mm)	± 0.003" (± 0.076 mm)	0.002" - 0.0049" (0.051 mm - 0.1245 mm)	± 0.0015" (± 0.0381 mm)
EXTRUDED SPECIAL	0.005" - 1.250" (0.127 mm - 31.750 mm)	± 0.005" (± 0.127 mm)	0.005" - 0.065" (0.127 mm - 1.651 mm)	± 0.002" (± 0.051 mm)
BIAXIAL ORIENTED TUBING	0.050" - 1.000" (1.270 mm - 25.400 mm)	± 0.010" (± 0.254 mm)	0.002" - 0.100" (0.051 mm - 2.540 mm)	± 0.002" (± 0.051 mm)

Aeos™ ePTFE Ribbon Capabilities				
WIDTH		THICKNESS		PORE SIZE
Width	Tolerance	Thickness	Tolerance	
0.050" - 4.000" (1.270 mm - 101.600 mm)	± 0.125" (± 3.175 mm)	0.002" - 0.030" (0.051 mm - 0.762 mm)	± 0.001" (± 0.025 mm)	1.0 µm - 10 µm

Aeos™ ePTFE Membrane Capabilities			
BASIS WEIGHT	THICKNESS	ROLL WIDTH	PORE SIZE
<i>Reference Only</i>			
1.50 g/cm <sup>3</sup> - 40.0 g/cm <sup>3</sup>	0.00015" - 0.004" (0.00381 mm - 0.102 mm)	6.0" - 12.0" (152.4 mm - 304.8 mm)	0.2 µm - 1.0 µm

Aeos™ ePTFE Monofilament Capabilities				
	OUTER DIAMETER (OD)	OD TOLERANCE	DENSITY	DENSITY TOLERANCE
AEOS™ CUSTOM MONOFILAMENT	0.010" - 0.150" (0.254 mm - 3.810 mm)	± 0.002" (±0.051 mm)	0.65 g/cm <sup>3</sup> - 1.85 g/cm <sup>3</sup>	± 0.2 g/cm <sup>3</sup>
AEOS™ SUTURE MONOFILAMENT (ASM)	0.008" - 0.030"* (0.203 mm - 0.762 mm)*	n/a	0.56 g/cm <sup>3</sup> - 1.09 g/cm <sup>3</sup>	n/a
AEOS™ HIGH STRENGTH SUTURE MONOFILAMENT (AHSSM)	0.008" - 0.0155"* (0.203 mm - 0.3937 mm)*	+ 0.0015" / - 0.0005" (+ 0.0381 mm / - 0.0127 mm)	0.85 g/cm <sup>3</sup> - 1.75 g/cm <sup>3</sup>	n/a

\*Aeos™ Suture Monofilament (ASM) is ordered in ASM Sizes 5 to 1. Aeos™ High Strength Suture Monofilament (AHSSM) is ordered in AHSSM Sizes 5 to 3. See Aeos™ Monofilament Sheet for more detail.

Additional Specification Options	
POROSITY RANGE	DENSITY RANGE
Low 30 - 50%	High 1.09 - 1.85 g/cm <sup>3</sup> ± 0.20
Medium 50 - 70%	Medium 0.65 - 1.09 g/cm <sup>3</sup> ± 0.15
High 70 - 90%	Low 0.22 - 0.65 g/cm <sup>3</sup> ± 0.15

