

# Aeos™ ePTFE

## Expanded PTFE Products



Zeus Aeos™ ePTFE tubing is highly flexible and chemically resistant.

## Overview

Aeos™ ePTFE products are made by extruding and expanding PTFE under controlled conditions during the manufacturing process. The resulting product is imparted with unique physical properties such as flexibility and strength that make it ideal for use in many unique and expected applications.

Aeos™ ePTFE products are composed of solid nodes interconnected by a matrix of thin fibrils. This matrix gives Aeos™ ePTFE products the microporous properties necessary to allow them to excel in diverse applications where porosity is vital. This material has a long history as a polymer component in regulated medical devices, is biocompatible, and is highly chemically resistant making it well-suited for implantable applications.

Our Aeos™ ePTFE products are not confined to medical applications. As tubing, the flexibility of this material means that it is well suited to fiber optics sleeving offering movement necessary for tight bends. The microporous nature and hydrophobicity of Aeos™ are also primary features for use to contain desiccant materials for packaging aids. As a cable filler, Aeos™ ePTFE monofilament enhances the robustness of cables and wires.

## Applications

- Medical stent grafts
- Filtration and venting
- Dental implants
- Fiber optics sleeving
- Wire and cable insulation
- Desiccant / packaging aids

## Products

- Suture monofilament
- Tubing (biaxial and uniaxial oriented)
- Monofilament
- Ribbon
- Profiles
- Multi-Lumens
- Tentered membranes
- Laminations

## Key Properties

- Microporous
- Hydrophobic
- Biocompatible
- Class VI approved
- Exceptional chemical resistance
- Low coefficient of friction
- Excellent dielectric properties



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

### Aeos™ ePTFE Tubing Capabilities (inches)

PRODUCT	INSIDE DIAMETER (ID)		WALL		POTENTIAL APPLICATIONS
		TOLERANCE	THICKNESS	TOLERANCE	
Sub-Lite-Wall®	0.014 - 0.150	± 0.003	0.0020 - 0.0049	± 0.001	Stent/Scaffolding Graft, Cosmetic Implants, Orthopedic Products, Fiber Optic Sheathing, Filtration, and Separation, Vascular Grafts
Extruded Special	0.005 - 1.250	± 0.005	0.0050 - 0.0650	± 0.002	
Biaxially Oriented	0.390 - 0.866	± 0.010	0.0020 - 0.0050	± 0.002	

### Aeos™ ePTFE Monofilament Capabilities

	OUTSIDE DIAMETER (in.)	TOLERANCE (in.)	DENSITY (g/cm <sup>3</sup> )	TOLERANCE (g/cm <sup>3</sup> )	POTENTIAL APPLICATIONS
Standard Tenacity (Breaking Strength ≤ 15,000Psi)	0.008 - 0.150	± 0.002	0.80 - 1.40	± 0.2	Medical Tethers, Manufacturing Aids, Woven Textiles
High Tenacity (Breaking Strength ≥ 15,000Psi)	0.007 - 0.030	± 0.002	0.85 - 1.40	± 0.2	

### Aeos® ePTFE Ribbon Capabilities (inches)

WIDTH		THICKNESS		POTENTIAL APPLICATIONS
THICKNESS	TOLERANCE		TOLERANCE	
0.05 - 4.00	± 0.020	0.002 - 0.020	± 0.0005	Dental Implants, Vascular Grafts

### Aeos® ePTFE Membrane Capabilities

BASIS WEIGHT (g/m <sup>2</sup> )	THICKNESS (REFERENCE ONLY)	ROLL WIDTH (in.)	PORE SIZE (µm)	POTENTIAL APPLICATIONS
1.50 - 40.0	0.00015 - 0.00400	6 - 24	0.2 - 1.0	Covered Stents, AAA Grafts, Scaffolding Membrane, Medical Filtration, Wound Care

### Additional Specification Options

POROSITY RANGE	DENSITY RANGE
Low 30 - 50%	1.09 - 1.52 g/cm <sup>3</sup> ± 0.15
Medium 50 - 70%	0.65 - 1.09 g/cm <sup>3</sup> ± 0.15
High 70 - 90%	0.22 - 0.65 g/cm <sup>3</sup> ± 0.15