

Aeos™ ePTFE Sutures

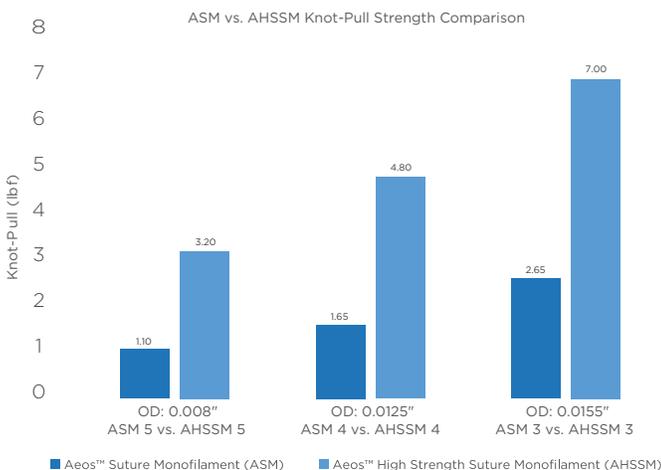
Standard and High Strength Sutures

Overview-

Aeos™ ePTFE suture products are engineered using advanced extrusion techniques to expand PTFE under controlled conditions to produce both standard and high strength suture monofilaments. Biocompatible Aeos™ ePTFE suture products are non-absorbable and can be permanently implanted in the human body with minimal immune response.

Combining a 1:1 suture-to-needle ratio with a soft feel and excellent drape, lubricious Aeos™ ePTFE sutures help minimize patient bleeding while ensuring accurate knot placement during delicate procedures.

When enhanced strength is vital, Aeos™ high strength suture monofilaments are an ideal choice. With nearly three times the USP knot-pull strength of standard ePTFE sutures, Aeos™ ePTFE high strength suture monofilaments provide superior performance for long-term load-bearing applications while still retaining soft feel and flexibility.



Both standard and high strength Aeos™ ePTFE sutures can be swaged up to a 1:1 need-to-suture ratio.

APPLICATIONS

- Suturing
- Tethering
- Vascular anastomosis
- Femoral vascular closure devices

AVAILABLE PRODUCTS

- Aeos™ ePTFE suture monofilament
- Aeos™ ePTFE high strength suture monofilament
- Aeos™ ePTFE customized monofilament

CAPABILITIES AND SIZING

- Can be swaged with a 1:1 needle-to-suture ratio
- Bulk supply available

KEY PROPERTIES

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



Aeos™ ePTFE Sutures

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

	Aeos™ ePTFE Customized Monofilament	Aeos™ ePTFE Suture Monofilament	Aeos™ ePTFE High Strength Suture Monofilament
AVAILABILITY	Customizable	Ordered as ASM/USP	Ordered as AHSSM/USP
STRENGTH CLASSIFICATION	Standard	Standard	Stronger
PROCESS	Extruded	Extruded	Extruded + Drawn
DENSITY	Moderate To High (0.65 g/cm ³ - 1.85 g/cm ³)	Moderate (0.56 g/cm ³ - 1.09 g/cm ³)	Moderate To High (0.85 g/cm ³ - 1.75 g/cm ³)
DENSITY TOLERANCE	± 0.2 g/cm ³	n/a	n/a
OUTSIDE DIAMETER (OD) THICKNESS	0.010" - 0.150" (0.254 mm - 3.810 mm)	0.008" - 0.030" (0.203 mm - 0.762 mm) <i>mean diameter</i>	0.008" - 0.0155" (0.203 mm - 0.3937 mm) <i>mean diameter</i>
OUTSIDE DIAMETER (OD) TOLERANCE	± 0.002" (±0.051 mm)	n/a	+ 0.0015" / - 0.0005" (+ 0.0381 mm / - 0.0127 mm)

To achieve the soft feel and drape preferred by clinicians, the diameters of Zeus Aeos™ Suture Monofilament (ASM) and Aeos™ High Strength Suture Monofilament (AHSSM) are larger than the USP standard. Because of this difference, Zeus has created our own sizing designations which are comparable to USP standards. A chart is provided to show the diameter and knot strength relationship.

Aeos™ ePTFE SUTURE CAPABILITIES			
USP Size†	Zeus Size	Mean Diameter†	Knot-pull Tensile Strength*
5-0	ASM 5	0.008" (0.203 mm)	≥ 1.10 lbf (0.50 kgf)
	AHSSM 5		≥ 3.20 lbf (1.45 kgf)
4-0	ASM 4	0.0125" (0.3175 mm)	≥ 1.65 lbf (0.75 kgf)
	AHSSM 4		≥ 4.80 lbf (2.18 kgf)
3-0	ASM 3	0.0155" (0.3937 mm)	≥ 2.65 lbf (1.20 kgf)
	AHSSM 3		≥ 7.00 lbf (3.18 kgf)
2-0	ASM 2	0.020" (0.508 mm)	≥ 3.97 lbf (1.80 kgf)
0	ASM 0	0.024" (0.610 mm)	≥ 5.95 lbf (2.70 kgf)
1	ASM 1	0.030" (0.762 mm)	≥ 7.50 lbf (3.40 kgf)

*For non-sterile sutures of Class 1, the limits for knot pull tensile strength are 25% higher than listed on USP chart.

† Zeus ASM / AHSSM diameters are measured using a laser micrometer on an uncompressed ePTFE suture fiber.

‡ USP 861 non-absorbable suture diameter measurement is of the dead-weight type measurement on a compressed suture fiber

