

Aeos[®] Suture

Expanded PTFE Monofilament

MONOFILAMENT



OVERVIEW

Aeos[®] ePTFE Suture Monofilament (ASM) is made by extruding and expanding PTFE under controlled conditions during the manufacturing process. This process alters the physical properties of the product by creating microscopic pores in the structure of the material. The resulting product is imparted with unique physical properties such as flexibility and strength that make it ideal for suture applications.

ePTFE has a long history of proven biological inertness in a variety of implant procedures including mitral valve repair, anastomosis, wound closure, and other vascular surgeries. ePTFE sutures have the biocompatible history, maintains a high tensile strength in vivo, and is well-suited for stressful internal environments where absorbable sutures are not appropriate.

ASM can be swaged onto needles up to a 1:1 ratio, maintain a soft feel, and have excellent drape. The low surface friction allows surgeons to position knots with precision, and their white color provides high visibility. They also meet or exceed United States Pharmacopeia (USP) standards for knot strength. We offer this product as a component allowing you to create your own complete suture lines and increase your brand awareness.



Zeus Aeos[®] ePTFE suture monofilament has superior knot strength and can be swaged up to a 1:1 ratio via suppliers such as RK Manufacturing Corporation.



CHEMICALLY INERT



BIOCOMPATIBLE



FLEXIBLE

APPLICATIONS

- Suturing vascular stent grafts
- Anastomosis
- Mitral valve repair
- Hernia repair

CAPABILITIES AND SIZING

- 6 standard sizes
- Custom sizes available
- Spooled or cut to length

KEY PROPERTIES

- High knot strength
- Microporous
- Hydrophobic
- Class VI approved
- Soft and flexible
- Chemically inert
- Excellent drape



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INFORMATION OF NOTE

To achieve the soft feel and drape preferred by clinicians, the diameter of the Zeus ASM is larger than the USP standard. Because of this difference, Zeus has created our own sizing designations which are comparable to USP standards. Zeus Aeos® suture is designated by ASM followed by a number. A chart is provided to show the diameter and knot strength relationship.

Aeos ePTFE Suture Capabilities				
Monofilament Size	Mean Diameter (in.) [†]	Mean Diameter (mm) [†]	Knot-Pull Tensile Strength (lbf)*	Knot-Pull Tensile Strength (kgf)*
ASM 5	0.0080	0.2032	≥ 1.10	0.50
ASM 4	0.0125	0.3175	≥ 1.65	0.75
ASM 3	0.0155	0.3937	≥ 2.65	1.20
ASM 2	0.0200	0.5080	≥ 3.97	1.80
ASM 0	0.0240	0.6096	≥ 5.95	2.70
ASM 1	0.0300	0.7620	≥ 7.50	3.40

Standard USP Comparison Chart				
USP Size	USP Diameter (in.) [‡]		USP Non-Sterile Limits on Average Knot-Pull Strength (lbf)*	USP Non-Sterile Limits on Average Knot-Pull Strength (kgf)*
	Min.	Max.		
5-0	0.0039	0.0059	1.10	0.50
4-0	0.0059	0.0078	1.65	0.75
3-0	0.0079	0.0098	2.65	1.20
2-0	0.0118	0.0133	3.97	1.80
0	0.0138	0.0157	5.95	2.70
1	0.0157	0.0196	7.50	3.40

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

[†] Zeus ASM diameter is measured using a laser micrometer on an uncompressed ePTFE suture fiber.

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

