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advancing the way we care



Advanced Wound Care



Advanced Cardiovascular Solutions



Advanced Hernia Solutions



Advanced Endo Surgery



Serve and care for more healthcare professionals and patients.



Become the most preferred company by providing high quality medical technologies at affordable prices to meet the needs of patients, healthcare professionals and providers in the global markets whilst serving and meeting our Corporate Social Responsibilities.



SERVING AND CARING FOR MORE PATIENTS

Advanced MedTech Solutions (AMS) is dedicated to advancing patient care by providing high quality medical device technologies to serve the needs of more patients and healthcare professionals.

Global healthcare needs are increasing and the collective capacity to answer them is challenged by meeting the demands of an aging population, the growing burden of chronic disease, and complex healthcare policies, it's incredibly clear the pace of change has never been greater.

The desire to make a difference in patients' lives led to the genesis of AMS.

LIFE ENHANCING INNOVATION

Our state-of-the-art facility is located in the industrial center of Vadodara, Gujarat. This ecofriendly manufacturing plant is singular in design and distinguished in efficiency. Designed by renowned Spanish architect Ricardo Bofill, it is equipped to manufacture a cutting-edge class of medical devices that meet the most stringent alobal standards.

It serves as a technological and healthcare ecosystem focused on the medical science fields of Advanced Surgical & Interventional Cardiology Solutions.

EMPOWERING HEALTHCARE PROFESSIONALS ADVANCING THE SPECTRUM OF HEALTHCARE

Headquartered in Vadodara, India, the company was established by an elite team of respected industry leaders and visionaries who understand the challenges of the current healthcare environment.

Redefining and raising the bar on standards of quality, care and trust. Our unwavering mission is to improve patient care through meaningful solutions.

With a dedication to excellence, we are committed to optimizing patient outcomes through quality, affordability, and accessibility - the heart of the AMS mission.

Reaching out to healthcare professionals and providers around the world, Advanced MedTech Solutions offers a compelling choice with a corporate and social responsibility founded on advancing the way we care for generations to come.



State of the Art Excellence

Commitment to People



Commitment to Professional Development





Commitment to Quality



Commitment to Research and Innovation







Geographical Footprints

4

164

Corporate

Manufacturing Therapies

Countries





Corporate HQ & Manufacturing

P-21-22,25-26 & 34-35, GIDC Manjusar, Tal-Savli, **Vadodara** - 391775 Gujarat, India | T: +9912667671302



Holding Company

Somerset Road, #07-08 Triple One Somerset, Singapore - 238164 T: (65) 63691080 / 89



Corporate Office

305, Ceejay House, F-Block, Shiv Sagar Estate, Dr. Annie Besant Road, Worli, **Mumbai** - 400018, India | T: +91 2224946100 / 01



Regional Office

SM0132, 1st Floor, DLF Star Mall, Sector 30, NH-48, Opp: 32nd Avenue, **Gurugram**, Hariyana - 122001, India

ADVATRAY *- the confidence to suture with ease



ADVATRAY a unique dispensing system designed to deliver ease of suture dispensing with minimal memory in the suture strand

Impeccable suturing experience for surgeons | Eliminates the need of suture lubrication

Premium needles for consistent superior performance

Minimal tissue trauma enables faster recovery

Premium needles ensure unsurpassed suturing experience .

DURABLE COAT Retains Sharpness Pass After Pass



Maintains needle sharpness over the duration of procedure, resulting in consistent penetration pass after pass thus less potential for tissue trauma.

RIBBED BODY* For Superior Control



For superior grasping and stability of needle in needle forceps.

CHAMFERING Minimum Suture Detachment



Diminishes chances for suture fracturing at the swage, by rounding off the sharp edges of the barrel in the swage area of the needle.

MICROFINISHING* Smooth & Bright



Makes needle surface free from micro asperities, thus creates ultra sharp edges for lesser tissue drag.

ADVACRYL® Braided Coated Polyglactin 910 (Undyed & Violet)



Product Description 90% Glycolide, 10% L-lactide Composition Copolymer of Poly (glycolide-co-lactide) and Calcium Stearate Coating U.S.P. 2 to 6-0 Available Sizes Colour Undyed and Violet Essentially complete upto 80 days Absorption Profile A wide variety of Round Bodied (Taper Point), Ball Point, Cutting, Taper Needle Availability Cut, Trocar, Reverse Cutting, Blunt Point, Oval Round Bodied, Diamond Point & Spatula Micro Point Needles Tensile Strength

3

Days of Implantation14 Days21 Days28 DaysTensile Strength Retention75%55%20%

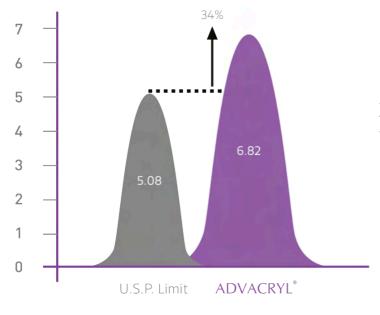
- Excellent knot security & lesser knot slippage
- Provides excellent support for range of critical wound healing period
- Tighter braided construction

With great versatility comes the confidence to meet specific needs

Versatile suture that meets specific wound healing needs of different tissue layers



Knot pull tensile strength (KgF)



34% more knot pull tensile strength than U.S.P. limit ensures knot security³

REFERENCES

1. ADVACRYL IFU - Data on file with AMS

2. Data on file with AMS

3. Data on file with AMS - Bench test done on Polyglactin - 910 U.S.P. Size - 1, 40 mm Round bodied needle

Excellent Handling Characteristics ensures:

- Superior first throw hold
- Easy knot-repositioning
- Excellent knot security & lesser knot slippage

Superior swage point integrity



Tighter Braided Construction ensures:

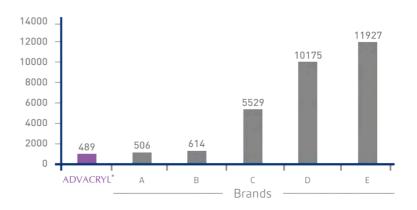
- Smoother suture surface for minimal tissue drag & trauma
- Lesser changes of bacterial colonization

Advanced tipping & mechanical drilling ensures minimal suture detachment at the swage point²

Robust manufacturing process & superior primary aluminium packaging ²

Least moisture content in the suture foil ensures uniform tensile strength & long term sterility throughout shelf life

Moisture content per pack $(\mu g)^3$



ADVACRYL PLUS® Antibacterial with Triclosan Braided Coated Polyglactin 910 (Undyed & Violet)



Composition	90% Glycolide, 10% L-lactide	
Coating	Poly (glycolide-co-lactide) (Glacomer 37) and Calcium Stearate, Triclosa	
Available Sizes	U.S.P. 2 to 4-0	
Colour	Undyed and Violet	
Absorption Profile	Essentially complete upto 80 days	
Needle Availability	A wide variety of Round bodied (Taper Point), Oval Round bodied, Ball Point, Cutting, Taper Cut, Reverse Cutting, Blunt Point, Trocar, Diamon Point & Spatula Micro Point Needles	
	Point & Spatula Micro Point Needles	
Tensile Streng		
Tensile Streng	gth	
	gth	

- >> Reduces the risk of post-operative surgical site infections
- Gentle knot repositioning
- Excellent knot security
- Tighter braided construction

ADVATRAY - the confidence to suture with ease



ADVATRAY a unique dispensing system designed to deliver ease of suture dispensing with minimal memory in the suture strand

Impeccable suturing experience for surgeons | Eliminates the need of suture lubrication

SSI is the third most common infection among hospital acquired infections ¹

Majority of patients' wounds presented for surgery are either clean-contaminated or contaminated ²

Contamination further multiplies the risk of surgical site infections ^{2,4}

Risk of SSI in patients	swith	
2.1%	3.3%	6.4%
Clean wounds	Clean-contaminated wounds	Contaminated wounds

Surgical site infections lead to:

9.8 Days

2-11 Times³

Extra postoperative stay ²

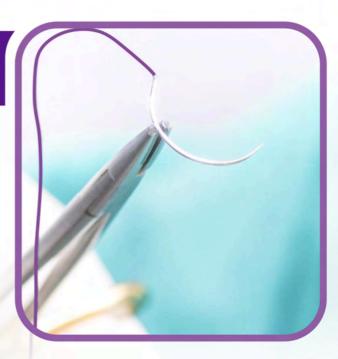
Increased risk of death due to surgery

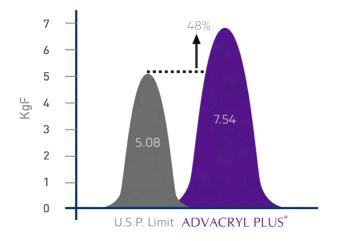
With great versatility comes the confidence to meet specific needs

Versatile suture that meets specific wound healing needs of different tissue layers

The ADVACRYL PLUS® Edge

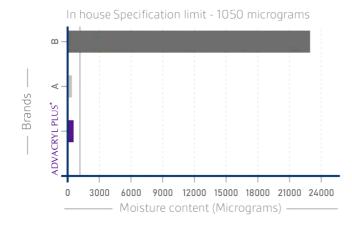
Provides excellent support for a range of critical wound healing periods to secure closure in a variety of tissues, procedures and patients 8





Knot pull tensile strength (KgF)

48% more knot pull tensile strength than U.S.P. limit ensures knot security



Moisture content per pack 9

Least moisture content in the suture foil ensures uniform tensile strength & long term sterility throughout shelf life

Triclosan - coated sutures are effective in reducing the risk of post operative SSI 5

Revised CDC guideline on SSI Prevention published in Aug - 2017 $^{\rm 6}$

Section 2C - In non parental antimicrobial prophylaxis "considers the use of Triclosan coated sutures for the prevention of SSI"

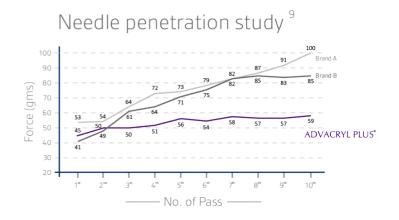


WHO Global Guidelines for the Prevention of SSI 7

Section 4.22 - Antimicrobial coated sutures recommends the use of Triclosan coated sutures for the purpose of reducing the risk of SSI, independent of the type of surgery.

Advanced needles paving the way for enhanced confidence & performance

Consistency in ease of penetration and maintaining needle sharpness from start to finish pass after pass



REFERENCES

- 1. Selvaraj, Sivasankari et. al. "A study on the post surgical wound infections in a tertiary care hospital in Kanchipuram". Jemds.com. March 2016
- 2. Gottrup, Finn et. al. "An overview of surgical site infections: aetiology, incidence and risk factors" worldwidewounds.com. September 2005
- 3. Mangaram, Alicia, "Guideline for prevention of surgical site infection" Vol. 20 No. 4, 1999
- 4. Henry Stanley et. al. Surg infect (Larchmt). 2010; 11:433
- 5. Mahajan N., Pillai R., Chopra H., Grover A., Kohli A. An economic model to assess the value of triclosan coated sutures in reducing the risk of surgical site infection in obstetrics and gynecological surgeries in India. Indian J Obstet Gynecol Res 2020; 7(1):59 65
- 6. Berríos Torres SI, Umscheid CA, Bratzler DW, et. al. Centers for Disease Control and Prevention Guideline for the Prevention of Surgical Site Infection, 2017. JAMA Surg.
- 7. WHO Global Guidelines for the Prevention of Surgical Site Infection, 2016.
- 8. ADVACRYL PLUS IFU Data on file with AMS.
- 9. Bench test done on Triclosan coated Polyglactin 910 U.S.P. size 1, 40 mm Round bodied needle Data on file with AMS.

ADVAMRYL® Monofilament Poliglecaprone 25 (Undyed & Violet)



Supreme handling performance for confidence in subcuticular skin closure



Predictable strength for superior support

Product Description

Composition Glycolide and ε-Caprolactone

Coating None

Available Sizes U.S.P. 0 to 5-0

Colour Undyed and Violet

Absorption Profile Essentially complete upto 90 days

Needle Availability A wide variety of Round Bodied (Taper Point), Ball Point, Cutting, Taper

Cut, Trocar, Reverse Cutting, Taper Cut, Blunt Point, Oval Round Bodied,

Diamond Point Needles

Tensile Strength

Days of Implantation 7 Days (1 to 5-0) 14 Days (1 to 3-0,5-0) 14 Days (4-0)

Tensile Strength Retention DYED 60% 40% 40%

Tensile Strength Retention UNDYED 55% 20% 15%

- Causes minimal tissue reaction
- High initial tensile strength
- Exceptional handling characteristics
- Lack of stiffness & memory

ADVATRAY *- the confidence to suture with ease



ADVATRAY a unique dispensing system designed to deliver ease of suture dispensing with minimal memory in the suture strand

Impeccable suturing experience for surgeons | Eliminates the need of suture lubrication

Premium needle performance

300 series needle alloy 4

The ultra high strength alloy appreciably diminishes chances of needle bending and breaking

Ribbed body needles 4

Superior grasping & minimal needle slippage

Advanced silicone coating ⁴

- Advanced coating technology ensures smooth and steady penetration during the procedure
- Distinctive coating technique enhances swage point integrity

Precise needles for confidence in cosmetic outcomes

Reduces the angle of cutting edges

Requires lesser penetration force

Minimizes tissue trauma & drag

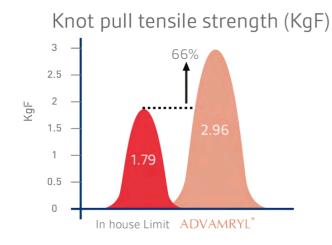
Superior cosmetic outcomes



In subcuticular closure, optimal cosmesis is essential for successful outcomes and patient satisfaction

An ideal wound closure solution should Address the risk factors of surgical site infection Secure approximation & eliminate the need of suture removal Achieve excellent precision and minimal scarring

Predictable strength for superior support 5



Superior pliability offers

Excellent handling characteristics

Knot tying properties & smooth run-down

Ideal for subcuticular skin closure

No need of suture removal

Acapillarity - Minimal risk of bacterial transmission

A monofilament suture scores over a braided suture:

- Ability to pass more smoothly through the tissue resulting in lesser tissue trauma¹
- The reduced surface area of a monofilament suture and its lack of interstitial spaces further minimize the risk of infection by reducing the ability of bacteria to harbor³

REFERENCES

^{1.} British Journal of Plastic Surgery Volume 53, Issue 2, March 2000, Pages 137 - 141

^{2.} ADVAMRYL IFU - Data on file with AMS

 $^{3. \,} Journal\, of the\, American\, Academy\, of\, Dermatology,\, Volume\, 18, Issue\, 4,\, Part\, 1,\, April\, 1988,\, Pages\, 619-637$

ADVAPD Monofilament Polydioxanone (Violet)



Enduring performance for confidence in extended wound support



The confidence to handle complications with ease

Product Description

Composition Polydioxanone

Coating None

Available Sizes U.S.P. 1 to 7-0

Colour Violet

Absorption Profile Essentially complete between 180 to 220 days

Needle Availability A wide variety of Round Bodied (Taper Point), Ball Point, Cutting, Taper

Cut, Trocar, Reverse Cutting, Blunt Point, Oval Round Bodied, Diamond

Point & Spatula Micro Point Needles

Tensile Strength

Days of Implantation14 Days28 Days42 Days

Tensile Strength Retention 80% 70% 45%

- High initial tensile strength
- Predictable absorption
- Prolonged wound support
- Minimal tissue reaction
- Good handling characteristics
- Smooth passage through tissues

Complications in abdominal wall closure after midline incisions

Wound Dehiscence

- Dehiscence can lead to a burst abdomen and exposure of the abdominal contents, prolonged hospital stays and requires reoperation³
- Mortality rates following dehiscence range from 15% to 20%

Surgical Site Infections

- SSIs can extend the inflammatory phase, during which the tissue has essentially no strength; increasing the risk of dehiscence and incisional hernia¹
- On an average, a single SSI can extend a hospital stay by 2 to 11 days²

Incisional Hernia

 A wound dehiscence significantly increases the risk of incisional hernia by upto 43%⁵

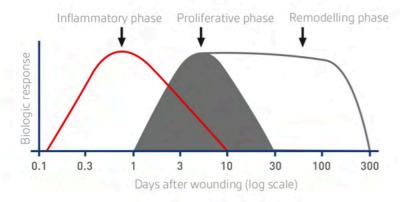
Challenges in abdominal wall closure

Slow fascia healing

Fascial tissue achieves only 50% of original tensile strength even after 2 weeks¹

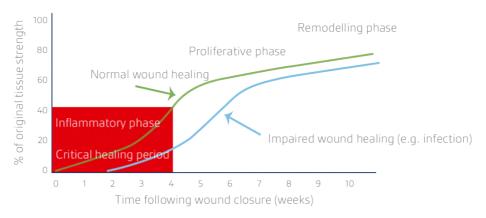
The phases of fascia healing

Fascia healing consists of 3 consecutive, overlapping phases⁴



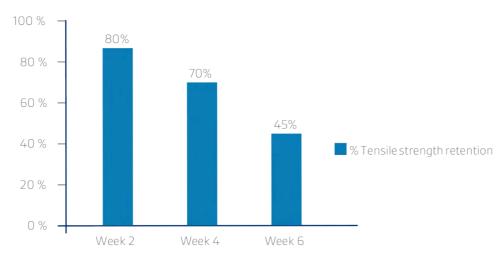
 Fascia healing is further impaired with comorbidities - diabetics, smokers, elderly & cancer patients⁷

Strength of abdominal wall ⁷



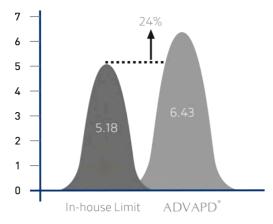
The confidence to handle complications with ease

Choosing the ideal wound closure solution helps address every complication



Absolute strength retention for upto 6 weeks, enough to support the fascia throughout the critical wound healing period $^{\rm 8}$

Knot pull tensile strength (KgF)



- 24% more knot pull tensile strength than in-house limit ensures knot security⁹
- \bullet Long term absorbable sutures ensure lesser complications like incisional hernia vs mid-term absorbable sutures 10
- Reduced surface area and lack of interstitial spaces in monofilament sutures minimize the risk of bacterial colonization & infections 11

Premium needles paving the way for enhanced confidence

Durable silicone coating to retain needle sharpness, pass after pass

Advanced coating technology ensures smooth and steady penetration during the procedure

Ribbed body needles

Superior grasping & minimal needle slippage

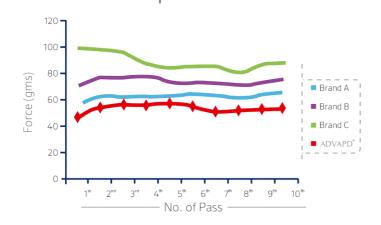
ADVATRAY • the confidence to suture with ease



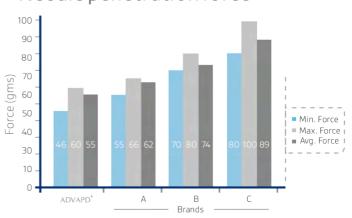
ADVATRAY a unique dispensing system designed to deliver ease of suture dispensing with minimal memory in the suture strand

Impeccable suturing experience for surgeons | Eliminates the need of suture lubrication

Incremental penetration force 9

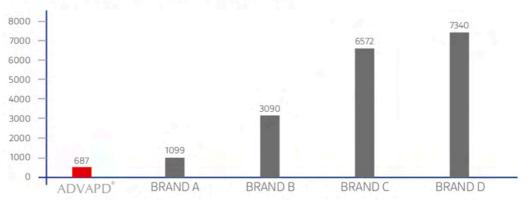


Needle penetration force 9



Robust manufacturing process & superior primary aluminum packaging ensures least moisture content in the suture foil





Ensures strength & sterility of the product is maintained throughout the shelf life of 5 years 8

Optimal Performance. Superior Confidence.

ADVAPD®, long term synthetic absorbable monofilament sutures are engineered to deliver prolonged strength and durable penetration consistently. Optimal for cases requiring extended wound support to achieve better patient outcomes

REFERENCE

- 1. Dubay, DA. " Acute wound healing: the biology of acute wound failure". Surg Clin North Am. 2003 Jun; 83(3): 463 81
- 2. Surgical site infection: incidence and impact on hospital utilization and treatment costs Am J Infect Control. 2009 Jun; 37(5): 387 97
- 3. Abdominal Wound Dehiscence in Adults: Development and Validation of a Risk Model World J Surg. 2010 Jan; 34(1): 20 27
- 4. Mechanical factors in abdominal wound closure: the prevention of fascial dehiscence Surgery. 1985 Jun; 97(6): 631 40
- 5. Incisional hernia after repair of wound dehiscence: incidence and risk factors Am Surg. 2004 Apr; 70(4): 281 6
- 6. Douglas. Br J Surg. 1952; 40: 79
- 7. Rath AM, Chevrel JP. The healing of laparotomies: review of the literature. September 1998, Volume 2, Issue 3, pp 145 149
- 8. ADVAPD IFU Data on file with AMS
- 9. Data on file with AMS Bench test done on Polydioxanone U.S.P. size 1, 40 mm Round bodied needle
- 10. Diener et. al. Ann. Surg. 2010, May 2010 Volume 251 Issue 5 pp 843 856
- 11. Bacterial Contamination of Surgical Suture Resembles a Biofilm Surg Infect (Larchmt). 2010 Oct; 11(5)

ADVALENE® Monofilament Polypropylene (Blue)



Product Description

Composition Polypropylene

Coating None

Available Sizes U.S.P. 1 to 8-0

Colour Blue

Absorption Profile Non-Absorbable

Tensile Strength Permanent

Needle Availability A wide variety of Round Bodied (Taper Point), Ball Point, Cutting, Taper

Cut, Trocar, Reverse Cutting, Blunt Point, Oval Round Bodied, Diamond

Point needles, ACC Needles & Black Needles

- Excellent knot security
- Causes minimal tissue reaction
- Non-thrombogenic
- To minimize the infection in contaminated wounds
- Advanced dispensing system
- Control linear elongation
- Unsurpassed strength
- Minimal suture breakage & fraying

ADVATRAY - the confidence to suture with ease

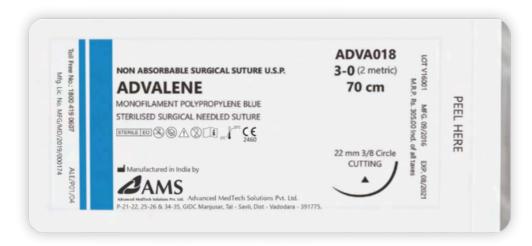


ADVATRAY a unique dispensing system designed to deliver ease of suture dispensing with minimal memory in the suture strand

Impeccable suturing experience for surgeons | Eliminates the need of suture lubrication

The assurance of an Aluminum Pack ⁷

The only Polypropylene with Aluminum Pack ensures



- An excellent barrier against external elements
- Lesser chances of product damage while handling
- Long term sterility

SSI is the third most common infection among hospital acquired infections ¹

Majority of patients presented for surgery are either clean-contaminated or contaminated ²

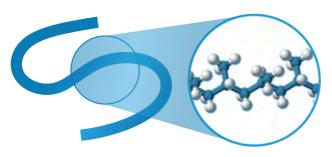
Contamination further multiplies the risk of surgical site infections ^{2,4}



Like all implants, sutures can be colonized by bacteria, which can lead to biofilm formation ⁴

The incidences of infections are lower in contaminated tissue with polypropylene sutures ⁵

With exceptional strength comes confidence that lasts Isotactic Strength for permanent wound support



- Absolute regular & longitudinal structure
- Minimal suture breakage & fraying
- Optimal elasticity & elongation
- Assured knot stability & security
- Enhanced pliability & handling
- Easy knot tying & smooth knot run-down

Exceptionally smooth surface

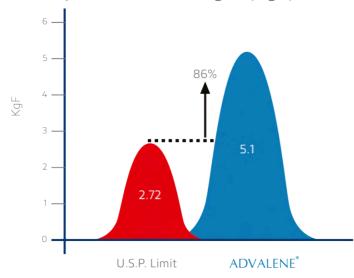
For minimal tissue drag & trauma

Excellent plasticity ensures

Excellent elasticity & elongation guarantees a stable knot

Knot deforms and flattens to provide excellent knot security

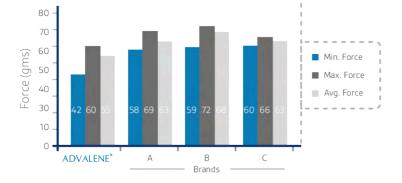
Knot pull tensile strength (KgF)



Predictable strength for permanent support

86% more knot pull tensile strength that U.S.P. limit ensures knot security⁷

Premium needles paving the way for enhanced confidence Needle penetration study ⁷



REFERENCES

- 1. Selvaraj, Sivasankari et. al. "A study on the post surgical wound infections in a tertiary care hospital in Kanchipuram". Jemds.com. March 2016
- 2. Gottrup, Finn et. al. "An overview of surgical site infections: aetiology, incidence and risk factors" worldwidewounds.com. September 2005
- 3. Mangaram, Alicia, "Guideline for prevention of surgical site infection" Vol. 20 No. 4, 1999
- 4. Henry Stanley et. al. Surg infect (Larchmt). 2010; 11:433
- 5. Physical and Chemical Configuration of Sutures in the Development of Surgical Infection Department of Plastic Surgery, University of Virginia Medical Center, Charlottesville. June 1973
- 6. ADVALENE IFU Data on file with AMS
- 7. Data on file with AMS Bench test done on Polypropylene U.S.P. size 1, 40 mm Round Bodied needle
- 8. Commonly used suture materials in skin surgery Ronald L. Moy, Alicia Zalka, Dec, 1991
- 9. Sutures and suturing techniques in skin closure, Mohan H. Kudur, Sathish B. Pai, H. Sripathi, Smitha Prabhu, Vol 75 Issue 4, July August 2009, Vol 75, Issue 4



Product Description

Composition Polyamide

Coating None

Available Sizes U.S.P. 1 to 10-0

Colour Black

Absorption Profile Non-Absorbable

Needle Availability A wide variety of Round Bodied (Taper Point), Ball Point, Cutting, Taper

Cut, Trocar, Reverse Cutting, Blunt Point, Oval Round Bodied, Diamond

Point & Spatula Micro Point Needles

Tensile Strength

Non Absorbable, however progressive hydrolysis of the suture in-vivo may result in gradual loss of its tensile strength over time

- >> Flexible, easy to handle and tie
- Smooth passage through tissue
- Excellent histocompatibility

Tyvek packaging ³

Start sterile... Stay sterile - Superior microbial barrier & moisture resistance **High tear strength** - Offers durable protection

Clean peel - Lesser number of particles release ensures minimal device contamination

Premium needle performance for precise cosmetic outcomes

300 series needle alloy 4

The ultra high strength alloy appreciably diminishes chances of needle bending and breaking

Ribbed body needles ⁴

Superior grasping & minimal needle slippage

Advanced silicone coating ⁴

Advanced coating technology ensures smooth and steady penetration during the procedure Distinctive coating technique enhances swage point integrity

No tissue adherence ⁶

Ease of suture removal Minimal discomfort to the patient

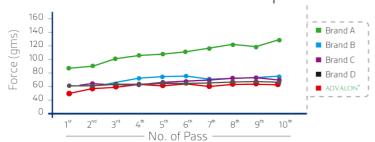
Monofilament construction ⁵

Acapillarity effect - Minimal risk of infection transmission

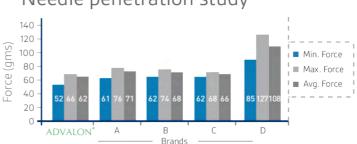
Smooth passage through the tissue

Minimal tissue drag & trauma

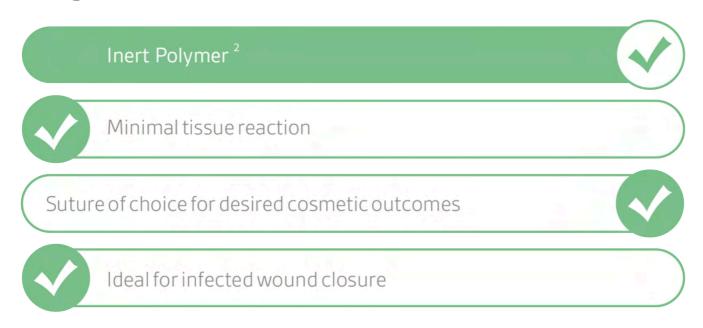
ADVALON® V/S other competitors 3



Needle penetration study ³

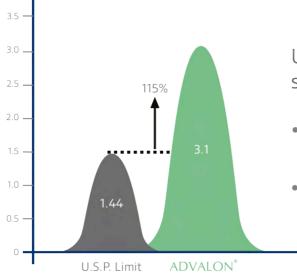


ADVALON® - Appropriate choice for dermal closure & retention suturing 1



High tensile strength - for secure retention suturing

Knot pull tensile strength (KgF)



Unsurpassed elasticity to ensure compact & safe knotting

- Excellent handling & superior tactile feedback
- Excellent knot security & run-down

REFERENCES

^{1.} Physical and Chemical Configuration of Sutures in the Development of Surgical Infection - Department of Plastic Surgery, University of Virginia Medical Center, Charlottesville, Virginia

^{2.} Cutaneous Wound Closure Materials: An Overview an Update - J Cutan Aesthet Surg. 2013 Oct - Dec

^{3.} Data on file with AMS - Bench test done on Nylon U.S.P. size - 2-0, 45 mm reverse cutting needle

^{4.} Data on file with AMS

^{5.} ADVALON IFU - Data on file with AMS

^{6.} Surgical Sutures: Am Overview - J. Acad. Indus. Res. Vol. 1(12) May 2013





Exceptional control for confidence in gentle tissue approximation



Excellent handling combination with great strength for gentle tissue approximation

Product Description

Composition Proteinaceous silk fibres called fibroin

Coating Wax

Available Sizes U.S.P. 4 to 5-0

Colour Black

Absorption Profile Non-Absorbable

Needle Availability Available as Pre-cut suture and in a wide variety of Round Bodied (Taper

Point), Ball Point, Cutting, Taper Cut, Trocar, Reverse Cutting, Blunt Point,

Oval Round Bodied & Diamond Point Needles

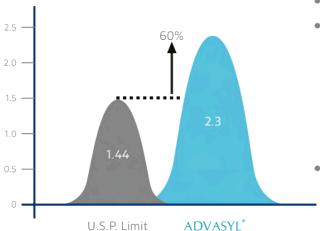
Tensile Strength

Gradual loss in tensile strength over a period of time

- Smooth passage through tissue
- Minimal acute inflammatory reaction in tissues
- Unsurpassed strength
- Optimal elasticity and elongation properties

Excellent handling combined with great strength for gentle tissue approximation ¹

Knot pull tensile strength (KgF)



Unsurpassed knotting performance¹

- Excellent knot run-down & security
- Excellent first throw hold

High tensile strength offers strong & secure closure for permanent wound support

60% more knot pull tensile strength than U.S.P. limit ensures knot security ⁴

Superior wax coating ³

- Braided suture
- Minimal tissue drag & trauma
- Uniform diameter throughout the strand
- Minimal suture breakage
- Reduced capillary action
- Minimal risk of infection transmission

Superior swage point integrity



Advanced tipping & mechanical drilling ensures minimal suture detachment at the swage point

REFERENCES

^{1.} Handling characteristics of braided suture materials for tight tying - J Appl Biomater. 1993 Spring; 4(1): 61 - 5

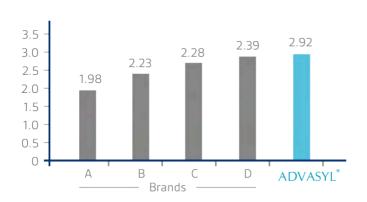
^{2.} Textile Implants: Silk Suture Manufacturing technology - Journal of Academia and Industrial Research

^{3.} Data on file with AMS

^{4.} Data on file with AMS - Bench test done on Silk U.S.P. size - 2-0, 45 mm Reverse cutting needle

Premium needles for enhanced confidence

Average needle pull tensile strength (KgF) Specification limit (U.S.P.) 1.1 KgF Needle pull tensile strength (KgF)⁴

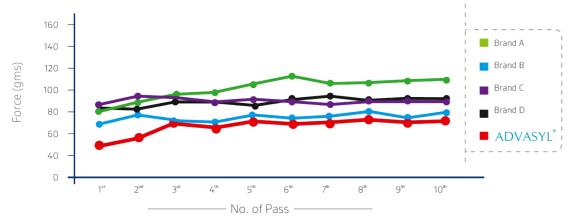




Durable silicon coating on needle for improved penetration

Advanced coating technology ensures smooth and steady penetration during the procedure

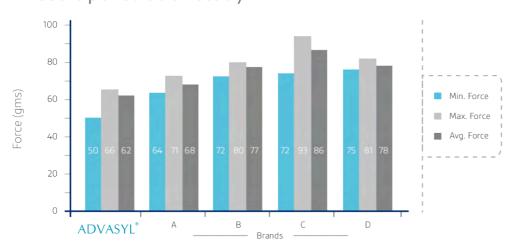




Superior needle geometry for improved handling

Ribbed body needles provide superior grasping & minimal needle slippage

Needle penetration study ⁴



ADVABOND TAPE

Non-absorbable braided polyester tape suture composed of polyethylene terephthalate

Indicated for use in general soft tissue approximation and/or ligation

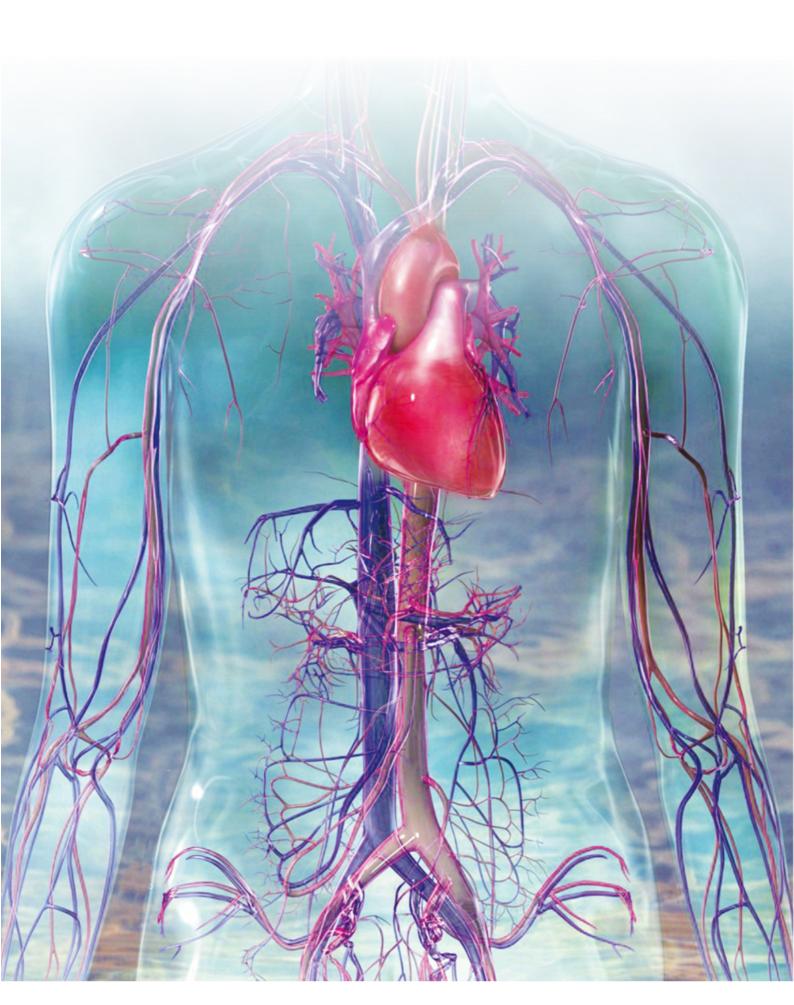


- >> For easy handling and secure knot tying.
- Minimal tissue reaction.
- ▶ ADVAPOINT atraumatic needles with ribbed body for superior control.
- >> High swage point integrity with channel swaging.

Product Information

Physical Material	Polyester fibre tape
Construction	Braided polyester fibre
Absorbable/ Non-absorbable	Non-absorbable
Color	White
Available Size	Length 30 cm Width 5 mm
Needle Specification	1/2 circle, 48 mm, Taper point
Tensile Strength (Wound Support)	Permanent
Tensile Strength (Wound Support) Frequent Uses	Permanent Gynecology (cervical cerclage), Orthopaedic,
	Gynecology (cervical cerclage), Orthopaedic,
Frequent Uses	Gynecology (cervical cerclage), Orthopaedic, Cardiovascular & Neurosurgery





Advancing the Science of Cardiovascular Needles



Advanced coating technology that ensures smooth and steady penetration during the procedure

Distinctive coating technique enhances swage point integrity



ADVAPOINT

Advanced Needle Point Geometry

ADVAPOINT'S intelligently engineered, advanced needle point geometry and enhanced sharpness assures maximum penetration consistency for an unsurpassed performance over multiple passes



Blunt Point

ADVAGUARD is engineered to diminish the chances of needle stick injuries, delivering both optimal strength and ductility with increased precision





ADVABLACK

Visibility Enabling Confidence

ADVABLACK needles offers outstanding visibility. Specially crafted for enhanced assurance and confidence in the operating

ADVANCED CALCIFIED CORONARY

Taper Cut

The unique point design of the CC Needle provides significantly improved penetration properties for the Cardiac/ Vascular surgeon when suturing tough, calcified vessels







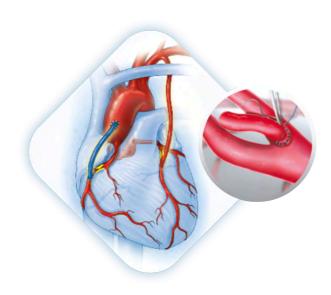
ADVALENE® Monofilament Polypropylene (Blue)



Product Description Composition Polypropylene Coating None Available Sizes U.S.P. 1 to 8-0 Colour Blue Absorption Profile Non-Absorbable Permanent Tensile Strength Needle Availability A wide variety of Round Bodied (Taper Point), Ball Point, Cutting, Taper Cut, Trocar, Reverse Cutting, Blunt Point, Oval Round Bodied, Diamond Point needles, ACC Needles & Black Needles

ADVANTAGES:

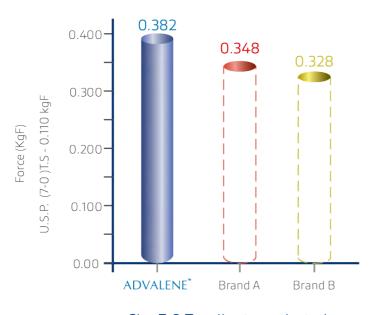
- Excellent knot security
- Causes minimal tissue reaction
- Non-thrombogenic
- To minimize the infection in contaminated wounds
- Advanced dispensing system
- Control linear elongation
- Unsurpassed strength
- Minimal suture breakage & fraying



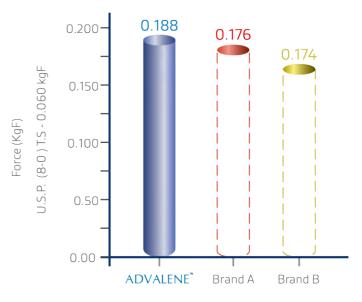
The ADVALENE® Edge ²

- Most inert monofilament structure makes
 ADVALENE® an ideal choice for anastomosis
- ADVAPOINT and ADVABLACK needles are specially designed with an engineered tip to maintain shape and sharpness pass after pass for the most challenging calcified lesions & fibrotic blood vessels
- •ADVALENE® offers exceptional control and smooth passage through diseased tissues allowing knots to be repositioned and secure

$\mathsf{ADVALENE}^{^\mathsf{TM}}$ delivers superior knot pull tensile strength 2



Size 7-0 Tensile strength study



Size 8-0 Tensile strength study

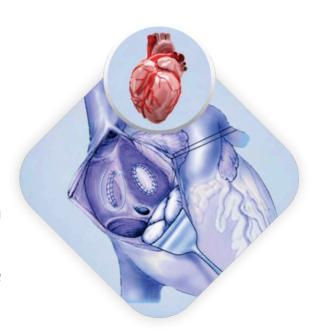
 $^{1.\} Data\ on\ file\ with\ AMS\ -\ bench\ test\ done\ on\ Polypropylene\ U.S.P.\ size\ 8-0,\ 8\ mm\ Taper\ point\ needle$

^{2.} Data on file with AMS - bench test done on Polypropylene U.S.P. size 7-0, 13 mm Taper point needle

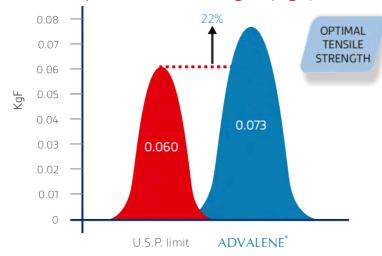
^{3.} Data on file with AMS - bench test done on Polypropylene U.S.P. size 6-0, 13 mm Taper point needle

Augment your confidence

- Exceptionally smooth surface
 - For minimal tissue drag & trauma
- Excellent plasticity ensures
 - Excellent elasticity & elongation guarantees a stable knot
 - Knot deforms and flattens to provide excellent knot security



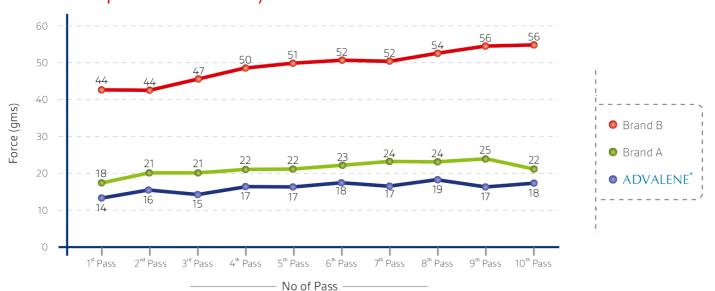




22% higher knot pull tensile strength than U.S.P. limit ensures knot security

Superior needles for consistent performance

Needle penetration study³



ADVASTEEL® 316 LVM Stainless Steel



Exceptional strength for confident and permanent support

Composition	Stainless 316LVM Steel
Coating	NA
Available Sizes	U.S.P. 7 to 1
Colour	NA
Absorption Profile	Non-Absorbable
Tensile Strength	Permanent
Needle Availability	Available as Round Bodied (Taper Point), Cutting, Reverse Cutting & Blunt Point.

ADVANTAGES:

- Exceptional tensile strength
- Excellent tissue compatibility

ADVABOND® Braided Coated Polyester (Green & White)



Composition	Polyethylene Terephthalate
Coating	Silicone
Available Sizes	U.S.P. 5 to 6-0
Colour	White & Green
Absorption Profile	Non-Absorbable
Tensile Strength	Permanent
Needle Availability	Round bodied (Taper point) & Taper cutting

ADVANTAGES:

- Soft and supple
- >> Silicon coated, designed for excellent handling and pliability
- >> Uniform braiding process designed to provide greater resistance for breaking
- Excellent knot security
- Low porosity PTFE felt pledgets
- Advanced intelligent dispensing system

The ADVABOND® Edge 2

The advanced solution for valve repair and replacement





Low porosity PTFE felt pledgets ⁴

Smooth & uniform construction for precise suture placement

The superior and effective buttress solution reducing suture tearing in the most delicate tissues

Reliable & consistent performance



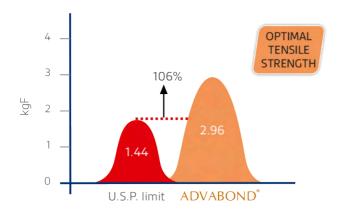
3 mm x 3 mm x 1.5 mm

6 mm x 6 mm x 1.5 mm

8 mm x 3 mm x 1.5 mm

6 mm x 3 mm x 1.5 mm

Knot pull tensile strength (KgF)³



106% more knot pull tensile strength vs. U.S.P. limit ensures knot security even in tissues with high motion & stress

Unsurpassed knotting performance ²

• Excellent knot run-down & security • Excellent first throw hold

Advanced Cardiovascular needles paving the way for enhanced confidence & performance

Needle penetration study ²



The advanced & intelligent dispensing system



Tyvek packaging ⁴

Start sterile... Stay sterile - Superior microbial barrier & moisture resistance High tear strength - Offers durable protection

Clean peel - Lesser number of particles release ensures minimal device contamination

REFERENCES

4. ADVAPLEDGET - Data on file with AMS

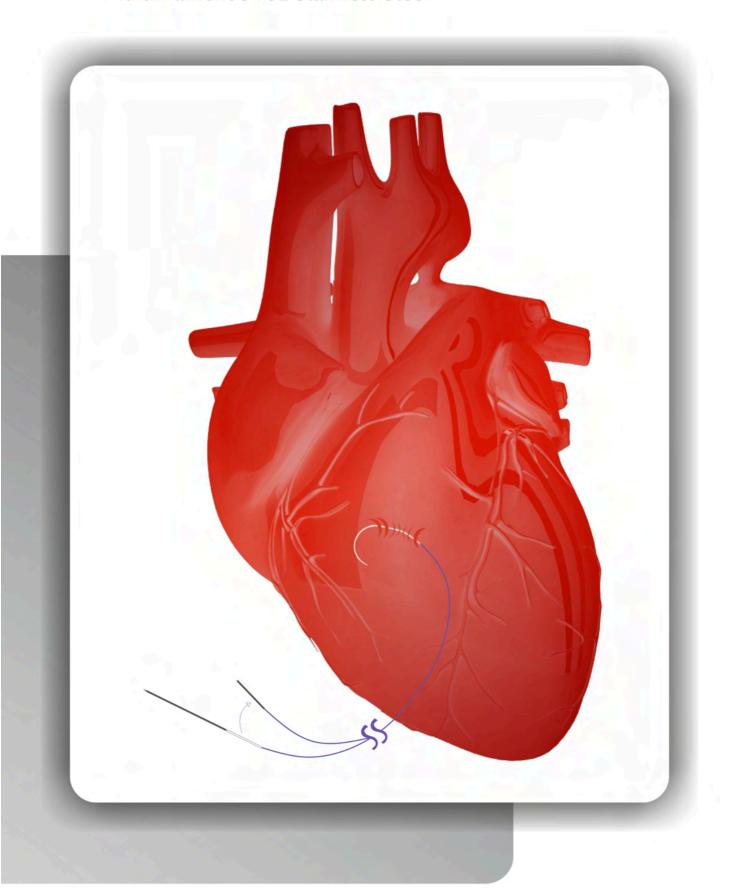


^{1.} ADVABOND IFU - Data on file with AMS | 2. ADVABOND - Data on file with AMS

^{3.} Data on file with AMS - bench test done on Polyester size - 2-0, 17 mm Round bodied needle

ADVAPACER®

Multifilament 316L Stainless Steel





Twisted 316L stainless steel wire, with blue Low Densile Polyethylene coating (sheathed), double needle in suture size 2-0, having a length of 60 cm.

Lead conductor resistant $(14.50 \Omega/M)^1$



- Stainless steel pacing wire insulated with Poly Ethylene.
- Poly Ethylene thermal sheath provides better flexibility to withstand body movement.
- Maximum energy transmission & minimum heat due to resistance.
- Optimum exposure of conductance wire towards intracorporeal end.
- Jack plug feature & straight breakaway needle.

Product Information

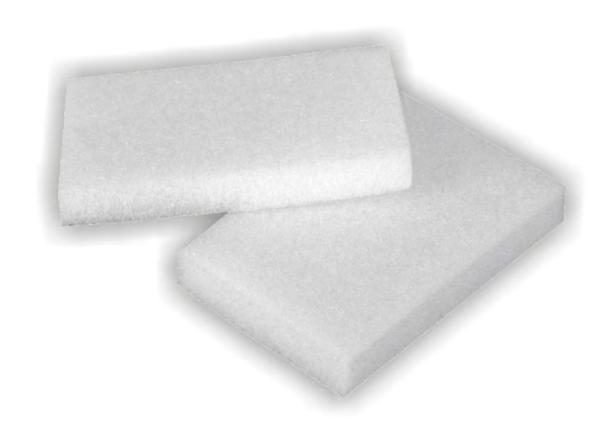
Structure	Multifilament	
Suture Type	Non-Absorbable	
Composition	Stainless Steel	
Coating	LDPE	
Color	Blue	
Tensile Strength	Permanent	
Absorption Profile	Permanent	
Size	2-0	
Sterilization Method	Ethylene Oxide	
Box Quantity	1 Dozen	
Shelf Life	5 Years	
Code	ADVA 13	ADVA 15
Needle		26mm 1/2 circle taper cut & 63mm st cutting break-off double arm needle

ADVASPONG Absorbable Gelatin Sponge Empowering haemostasis with confidence and precision

Ultra-refined gelatin-based foam

Precise bleed management, unhindered tissue healing

Unmatched proficiency, supreme oozing control



Where safety meets efficacy, ADVASPONG redefining wound care

Rapid platelet adhesion & aggregation¹, achieve haemostasis within 2-3 minutes²

Extraordinary blood absorption, 50-60 times its molecular weight

A biodegradable marvel, complete absorption within 3-4 weeks³

Maximizing delicate tissue protection ⁴, minimizing sponge swelling effect

Technical Specifications

Product	Sterile Absorbable Haemostatic Gelatin Sponge		
Order code	ADVASPG-S	ADVASPG-R	
Type	Standard	Regular	
Material	Purified Gelatin	Purified Gelatin	
Dimensions	80 x 50 x 10 mm	70 x 50 x 10 mm	
No. of items / pack	2	2	
Sterilization	Gamma Radiation	Gamma Radiation	
Shelf life	3 Years	3 Years	

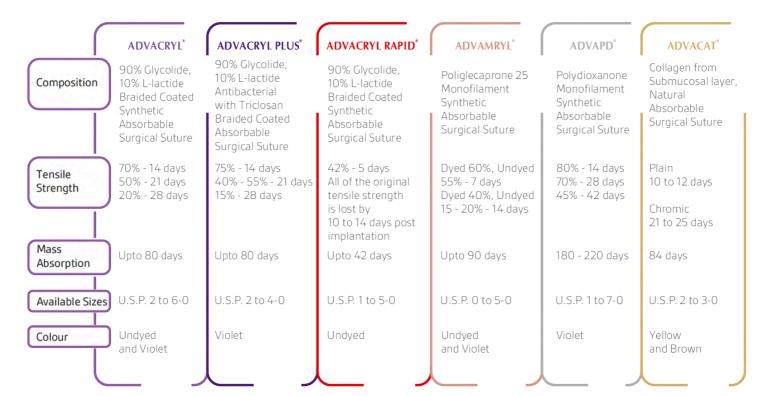


^{1,2.} Advances in haemostatic sponges: Characteristics and the underlying mechanisms for rapid haemostasis by Akriti Nepal, Huong D N Tran, Nam-Trung Nguyen, Hang Thu Ta

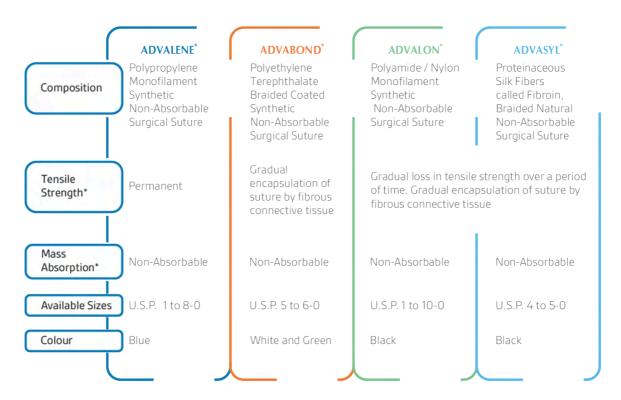
^{3.} Hemostasis, Surgical Bleeding, and Transfusion by Margaret C. Mudge

^{4.} Recent advances in the medical applications of hemostatic materials byYu Guo, Min Wang, Qi Liu, Guoliang Liu, Shuang Wang and Jiannan L

Absorbable Suture Portfolio

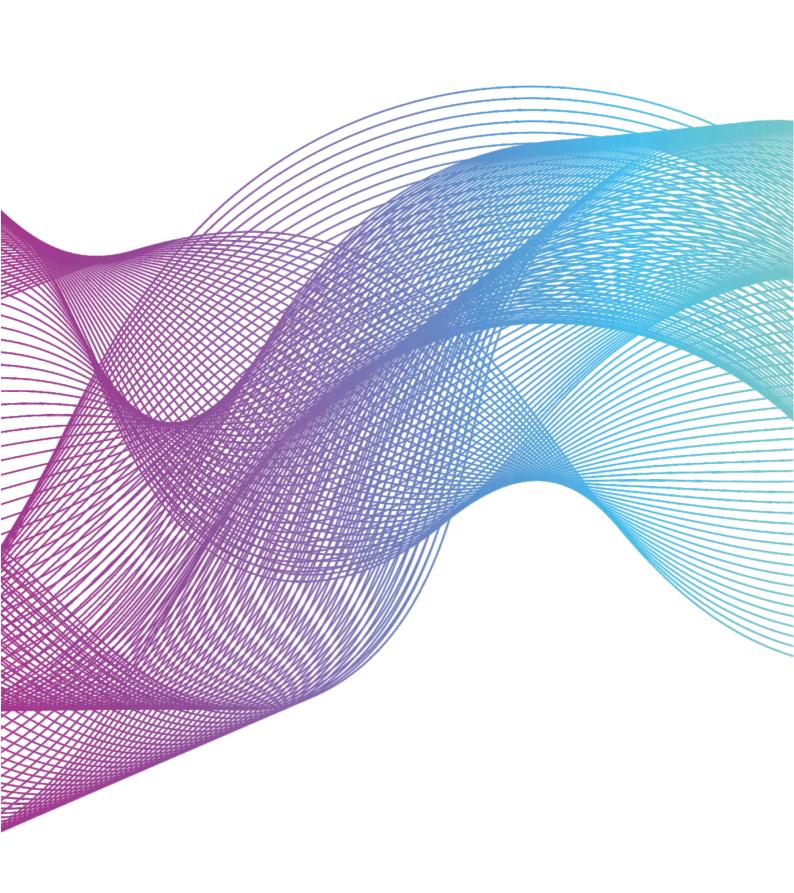


Non-Absorbable Suture Portfolio



^{*} These are approximate days which may vary with size.

^{*} Mass Absorption : Time in days required for suture to be totally absorbed by the body.



Ultimate strength and confidence for repair of abdominal wall hernia and deficiencies

The **ADVAMESH**® Edge

 Specially engineered for open ventral and inguinal hernia repairs



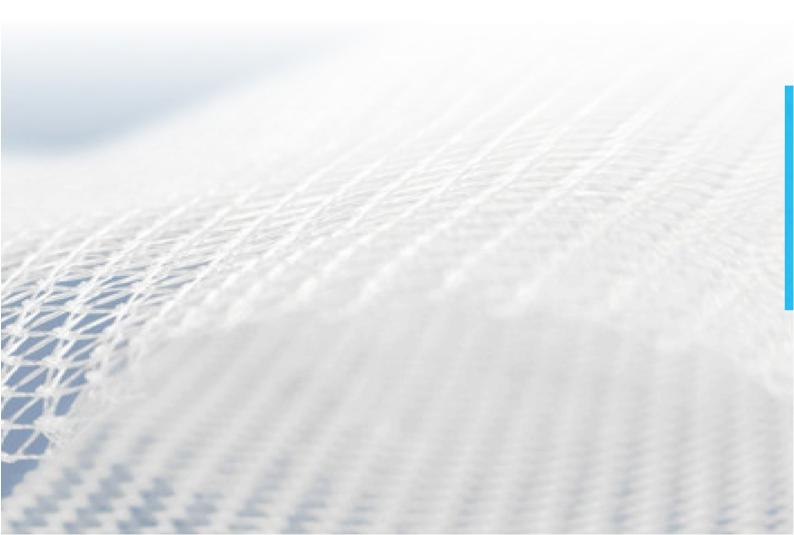
○ Light compliant knit structure allows fibroblastic tissue response



- Ease of customization for confident clinical outcomes
- ♦ Advanced knitting structure allows optimal tissue growth & flexible scar formation
- Enhanced burst strength and tensile strength for robust repair

Technical Specification

Typical pore size	1.0 x 0.6 mm
Weight of the mesh	~ 65 GSM
Thickness	0.46 mm
Mullen burst strength	~ 930 KPA





Uniquely crafted

for unmatched tissue reinforcement

Macroporosity: enhanced comfortable healing 4

- Reduced fibrous tissue encapsulation
- Optimized tissue integration¹
- Prevents infection and seroma formation 3,4
- Less foreign body material¹

Advanced warp-knitting technology

- Smooth and atraumatic design²
- Flawless fray resistant edges
- Customization for confident clinical outcomes⁴





Innovative honeycomb structure

- Multidirectional elasticity²
- Flexible scar plate: adapting to body's movements¹
- Minimizing memory, maximizing implant effectiveness³

Blue informative lines

- Facilitates precise placement and minimal tissue disruption
- Improved visibility of underlying anatomy

Superior strength and handling

- Robust mechanical strength and flexibility 1
- Abdominal wall conformability for supreme softness ¹

Suitable for laparoscopic & open procedures

- Easy trocar deployment
- Seamless unfolding of mesh intraoperatively



Laparoscopic repair



Open repair



Technical Specification

Material Polypropylene

Pore size 3 x 2.2 mm (Honeycomb)

Weight ~50 GSM

Thickness 0.49 mm

Burst strength 585 (Kpa)

Monofilament size 5-0 (0.125mm)

Shelf Life 5 Years

Ordering Information

Reference	Product description	Qty / box
ADVAPM0611	Polypropylene macroporous (6 cm x 11 cm)	3
ADVAPM7615	Polypropylene macroporous (7.6 cm x 15 cm)	3
ADVAPM1015	Polypropylene macroporous (10 cm x 15 cm)	3
ADVAPM1515	Polypropylene macroporous (15 cm x 15 cm)	3
ADVAPM1520	Polypropylene macroporous (15 cm x 20 cm)	3
ADVAPM2020	Polypropylene macroporous (20 cm x 20 cm)) 1
ADVAPM3030	Polypropylene macroporous (30 cm x 30 cm)) 1

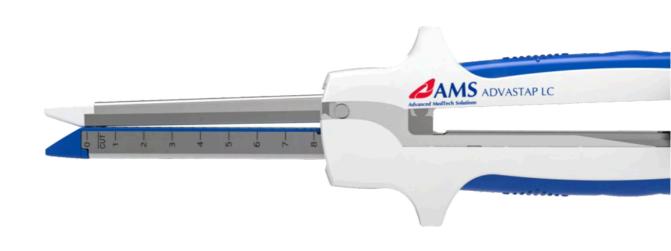
Reference

^{1.} Past, Present and Future of Surgical Meshes: A Review (22-08-2017) By Karen Baylon, Perla Rodríguez-Camarillo, Alex Elías-Zúñiga, José Díaz-Elizondo, Robert Gilkerson, Karen Lozano

^{2.} Mesh implants: An overview of crucial mesh parameters (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming Zhu, Philipp Schuster, Uwe Klinge (2015 Oct 27; 7(10): 226-236) By Lei-Ming (2015 Oct 27; 7(10): 226-236) By Lei-Mi

^{3.} Hernia repair: the search for ideal meshes (11-11-2009) By S. Bringman, J. Conze, D. Cuccurullo, J. Deprest, K. Junge, B. Klosterhalfen, E. Parra-Davila, B. Ramshaw, V. Schumpelick

^{4.} Effects of macroporous monofilament mesh on infection in a contaminated field (2014 Aug 29, 399(7): 873–877)By Kamil Bury, Maciej Smietanski, Bigda Justyna, Piotr Gumiela, Anna Irmina Smietanska, Rados aw Owczuk, Lukasz Naumiuk, Alfred Samet, and J. Paradziej-Lukowicz







ADVASTAP Skin Stapler Think Intelligent. Think ADVASTAP.





Technical Specification

Order code ADVASKN-35

Description Skin stapler 35 wide

Closed position 7.25 mm 4.20 mm

Wire 0.56 mm

Staple material Medical grade stainless steel

Units per box 10

Shelf life 3 years

Reference

^{1.}Study of comparison between skin sutures and skin staplers: 400 case studiesBy Vikash Lal, Tanveer Parvez Shaikh, Pranav Narayan, Sharique Ansari, Sandesh Deolekar

^{2.} Surgical Staples: A Superior Alternative to Sutures for Skin Closure After Neck Dissection—A Single-Blinded Prospective Randomized Clinical StudyBy Shrenik Oswal, Rajiv Borle, Nitin Bhola, Anendd Jadhav, Sanidhya Surana, Rajesh Oswal







Pinpoint Placement Technology

Innovative design for precise positioning accuracy

Revolutionary Feed System

Smooth and effortless stapling performance

User-centric intuitive design

Versatile flexibility

High quality construction

Optimized cosmesis 1

The Ultimate Solution for every surgeon.



Superior handling with advanced grip design



Simplified clip ejection with high performance functionality ²



Flawless box-style staple formation

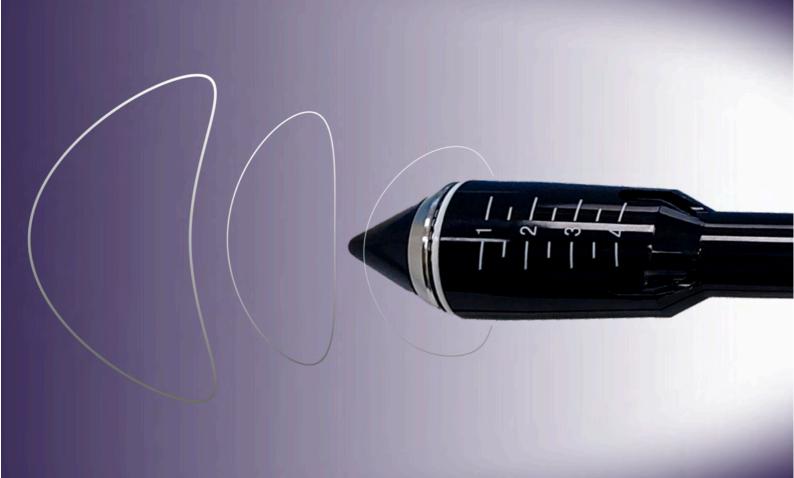


Swift and seamless extraction



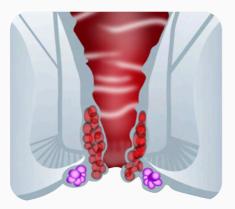
ADVASTAP HD Hemorrhoid Stapler

Safe.Superior.Precisely Invasive.

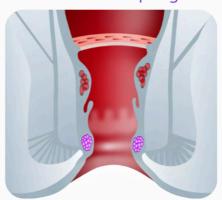


Prioritising patient confidence. ²

Pre-treatment examination



Post-treatment progress



Technical Specification

Reorder code

Pin row construction

Pin material

Pin per cartridge

Staple height

Closed staple shape

Closed staple height

Housing capacity (cc)

Lumen size

Qty/box

Shelf life

Usability

ADVAPPH-33

2 Row

Titanium Grade 1

34 **M**

3.8 mm

B Form

0.75 mm-1.5 mm

17.97

33 mm

3 years

Single-use

ADVAPPH-34

2 Row

Titanium Grade 1

34

3.8 mm

B Form

0.75 mm-1.5 mm

21.86

34 mm

3 years

Single-use

^{1.} Stapled Surgery for Hemorrhoidal Prolapse: From the Beginning to Modern Times (10-03-2020) by Alessandro Sturiale*, Bernardina Fabiani, Claudia Menconi, Danilo Cafaro, Felipe Celedon Porzio and Gabriele Naldini

^{2.} A Prospective Study Comparing Stapler and Open Surgical Technique of Hemorrhoidectomy (03-17-2023)By Mohal Kumar, Deepak Pankaj, Nitesh Kumar, K Abhishek, Vibhuti Bhushan, Yasir Tajdar, Pooja Kumari, Sweta Muni

ADVASTAP HD Hemorrhoid Stapler

Advancing superior hemostasis with optimal compression



Transanal Accessories



Driving Innovation in Surgical Stapling Safety 1

Intelligent dual safety mechanism

Safety lock should be in open position



Red indicator should be in the green zone







ADVALENE

Polypropylene: The ideal choice for purse-string suturing





Innovative B-form staple technology 2

Consistent tissue compression ²

Minimised risk of leaks or bleeding 1



Superior hemostasis with less tissue stress ²

Flawless directional bending: Enabled by rectangular cross-section



Technical Specification

Cartridge order codes	ADVALCR60B	ADVALCR60G	ADVALCR80B	ADVALCR80G
Linear cutter order codes	ADVALC60	ADVALC60	ADVALC80	ADVALC80
Staple length before closure	3.8 mm	4.8 mm	3.8 mm	4.8 mm
Approx. staple height closed	1.6 mm	2.0 mm	1.6 mm	2.0 mm
Color		and the second of the second o		The second state of the se
No. of reloads	6	6	6	6
No. of pins	64	64	84	84
Rows of staples	4	4	4	4
Length of staple line	61	61	81	81
Shelf life	3 years	3 years	3 years	3 years
Usability	Single-use	Single-use	Single-use	Single-use

Reference

 $^{1.} Stapled versus handsewn \,methods for ileocolic \,an astomoses \,(15\text{-}11\text{-}2019) \,by \,Gaetano \,Luglio, \,Francesco \,Corcione$

^{2.} Surgical stapling device-tissue interactions: what surgeons need to know to improve patient outcomes (12-09-2014) by Edward Chekan and Richard L Whelan And Richard L Whelan

ADVASTAP LC Linear Cutter

Secure hemostasis for unwavering confidence



Uncompromised coupling safety

Single use reloads ²



Optimal and secure placement

Atraumatic anvil tip



Pristine stainless steel

High performance blade with each cartridge

Simplified tissue control

Single handed rear hinge clamping

Anti-skid grip

Achieving ideal firing force



Robust reload lock lever



Smooth & rapid unclamping

Push button release



Enhanced firing efficiency

Two sided equipoised firing knob



Safety lock

Enclose the blades pre and post firing

Avoids accidental operational misfiring before clamping ²



Ordering information

- > Clips are delivered in color-coded cartridges for easy identification
- 3 years shelf life

ADVACLIP

e Clip size	Clips/ cartridge	Cartridges/ box	Clips/ box	Cartridge color
Small	6	24	144	-
Medium	6	24	144	
Medium-Large	6	18	108	
Large	6	18	108	
	Small Medium Medium-Large	e Clip size cartridge Small 6 Medium 6 Medium-Large 6	e Clip size cartridge box Small 6 24 Medium 6 24 Medium-Large 6 18	e Clip size cartridge box box Small 6 24 144 Medium 6 24 144 Medium-Large 6 18 108

APPLIERS

Reference code Clip size J	aw Type	Working length	Units/ box	Handle color
ADVATLG-SA9 Small		19 cm, 28 cm	1	0
ADVATLG-MA9 Medium		19 cm, 28 cm	1	0
ADVATLG-MLA9 Medium-Large		19 cm	1	0
ADVATLG-LA9 Large		19 cm	1	0

ADVACLIP Titanium Ligation Clip ¹

Security redefined

Meticulously designed

- > Inner cross-serration: Optimizing the contact surface
- > Innovative pull-tab adhesive mechanism: Intuitive fixation at any surface and effortless cartridge loading
- > Single mold design: Eliminates cartridge dismantling







Revolutionizing clip integrity

- > Novel knurling surface: Superior grip to avoid clipslippage
- > Distinctive heart-shaped profile: Dependable vessel occlusion, eliminating the risk of scissoring



Distinguished chevron shape for safe and precise positioning



Unique tip first closing behavior

ADVACLIP APPLIERS for open surgical procedures Quick, easy and effective

- > Diamond dusted jaws: Enhanced stabilization and precise loading
- > Triangular surface: High accuracy of clip positioning within the jaws





ADVALOOP®

Pre-knotted Ligature Loop





Catgut chromic pre-knotted loop for your ligation needs in laparoscopic procedures



- >> Designed to ligate tissue with loop slipped knot
- > Precise & excellent hemostasis
- Non-leachable mark at the scored end
- >> Nylon tube securely glued at extra-corporeal end
- Marginal reduction in intra-operative cost

Product Information

Characteristics	Natural Absorbable Surgical Suture		
Color	Chromic		
Absorption	84 days		
Tensile Strength	21 days		
Sterilization	Gamma Radiation		
Shelf Life	5 Years		
Packaging	1 Dozen		
Code	ADVALP01	ADVALP02	
USP Size	0 (50 cm)	1 (50 cm)	

