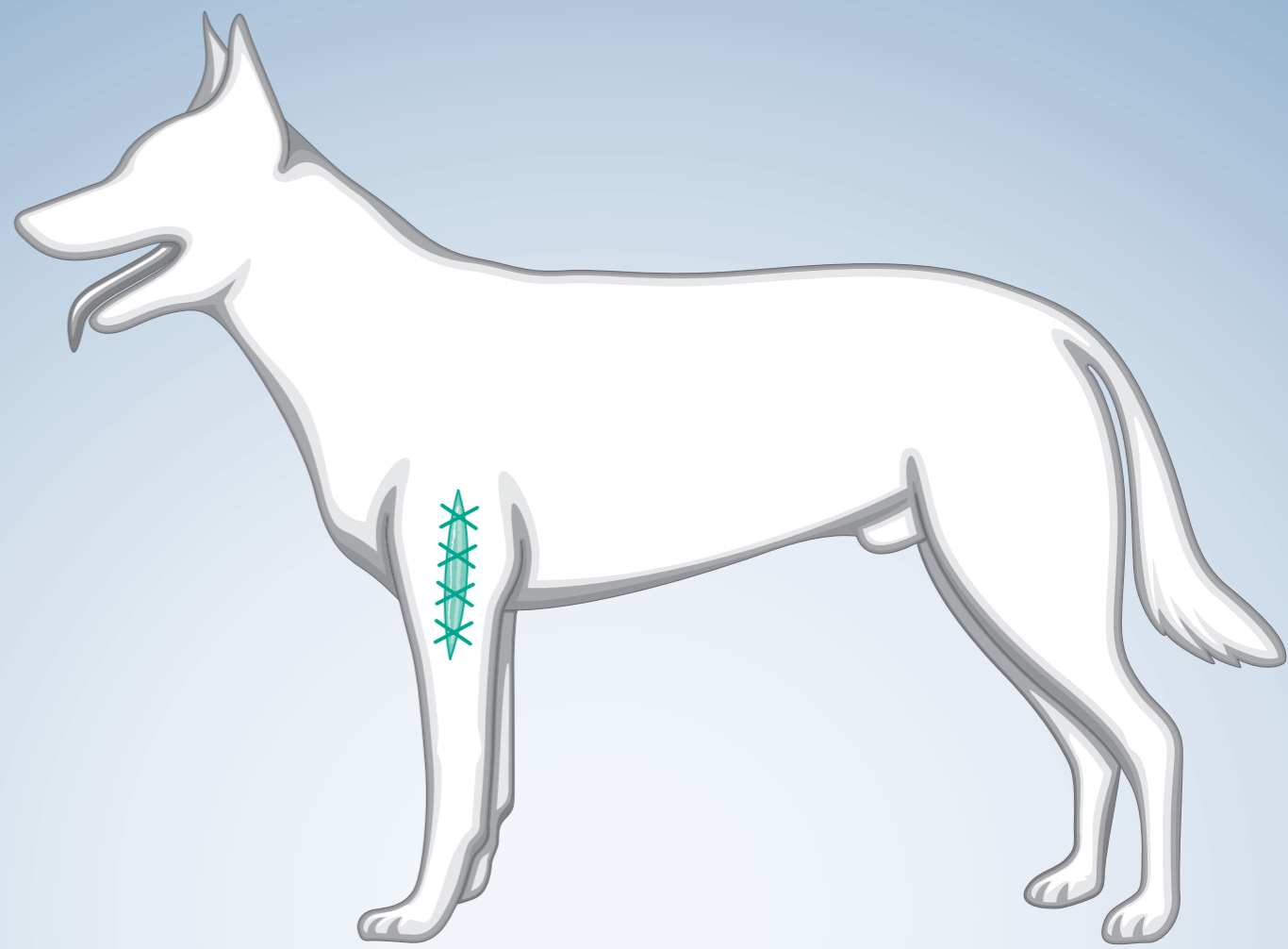




B. Braun Veterinary Surgery

Suture Material and Special Products



Suture Materials and Special Products

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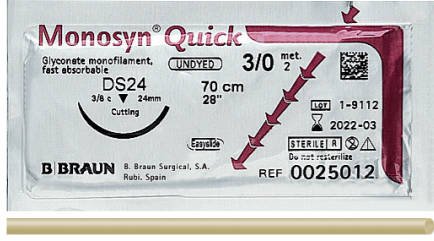




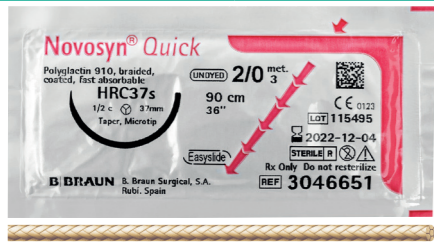

Information:

The catalog only shows an excerpt from our full wound management portfolio. If you are interested in further products, please do not hesitate to contact us.
E-mail: vetcare.bbmuk@bbraun.com




Specialist Information



Overview of Suture Materials

Absorbable		Absorbable		Absorbable	
Monosyn® Quick		Monosyn®		MonoPlus®	
					
Thread composition:	Monofilament	Thread composition:	Monofilament	Thread composition:	Monofilament
Material:	Glyconate	Material:	Glyconate	Material:	Poly-p-dioxanone
Coating:	None	Coating:	None	Coating:	None
Metric:	0.7 – 4	Metric:	0.7 – 4	Metric:	0.5 – 5
USP:	6/0 – 1	USP:	6/0 – 1	USP:	7/0 – 2
Colour:	Undyed	Colour:	Dyed, undyed	Colour:	Dyed
Loss of tensile strength:	~ 6 – 7 days 50 %	Loss of tensile strength:	~ 14 days 50 %	Loss of tensile strength:	~ 35 days 50 %
Material absorption:	~ 56 days	Material absorption:	~ 60 – 90 days	Material absorption:	~ 180 – 210 days
Indications		Indications		Indications	
<ul style="list-style-type: none"> Intracutaneous skin closure Gynecology, urology Dental surgery 		<ul style="list-style-type: none"> Skin, mucosa Gynecology, urology, gastro. tract Sub- and intracutaneous sutures 		<ul style="list-style-type: none"> Orthopedic surgery, capsular suturing Colon surgery Abdominal wall closure 	

Absorbable		Absorbable	
Novosyn® Quick		Novosyn®	
			
Thread composition:	Braided	Thread composition:	Braided
Material:	Polyglactin 910	Material:	Poly(glycolide-co-l-lactide 90/10)
Coating:	Polyglactin 370 + calcium stearate	Coating:	Poly(glycolide-co-l-lactide 35/65) Calcium stearate
Metric:	0.7 – 4	Metric:	0.2 – 5
USP:	6/0 – 2	USP:	8/0 – 2
Colour:	Undyed	Colour:	Dyed
Loss of tensile strength:	~ 5 days 50 %	Loss of tensile strength:	~ 21 days 50 %
Material absorption:	~ 42 days	Material absorption:	~ 56 – 70 days
Indications		Indications	
<ul style="list-style-type: none"> Intracutaneous skin closure Dental surgery 		<ul style="list-style-type: none"> Ligatures Ophthalmology Gynecology, urology, abdominal wall closure 	

Information:
Resorption times may vary from case to case.
Evidence is available upon request.

Non-absorbable		Non-absorbable		Non-absorbable	
Dafilon®		Supramid®		PremiCron®	
					
Thread composition:	Monofilament	Thread composition:	Pseudomonofilament	Thread composition:	Braided
Material:	Polyamide 6.6	Material:	Polyamide 6.6	Material:	Polyester
Coating:	None	Coating:	None	Coating:	Silicone
Metric:	0.1 – 4	Metric:	0.7 – 5	Metric:	0.7 – 7
USP:	11/0 – 1	USP:	6/0 – 3	USP:	6/0 – 5
Colour:	Blue, black	Colour:	Black, white	Colour:	Green, white
Indications		Indications		Indications	
<ul style="list-style-type: none"> Skin closure 		<ul style="list-style-type: none"> Skin closure 		<ul style="list-style-type: none"> Skin closure Vascular surgery 	

Non-absorbable		Non-absorbable	
Optilene®		Steelex®	
			
Thread composition:	Monofilament	Thread composition:	Twisted
Material:	Polypropylene & polyethylene	Material:	Corrosion-resistant surgical steel
Coating:	None	Coating:	None or polyethylene
Metric:	0.2 – 4	Metric:	1 – 3
USP:	10/0 – 0	USP:	5/0 – 2/0
Colour:	Blue	Colour:	Metallic
Indications		Indications	
<ul style="list-style-type: none"> Hernias and vessel surgery Tendons and capsular suturing Skin closure 		<ul style="list-style-type: none"> Orthopedic surgery Tendons, ligaments Sternal sutures 	

Specialist Information

Tissue-specific Application Recommendations – Thread Diameter

Dogs	USP METRIC						
	5/0 1	4/0 1.5	3/0 2	2/0 3	0 3.5	1 4	2 5
Skin		✓	✓	✓			
Subcutis		✓	✓				
Mucosa	✓	✓	✓				
Small Intestine, Colon	✓	✓	✓				
Bladder (infected)	✓	✓					
Ureter/Urethra	✓	✓					
Uterus		✓	✓	✓			
Parenchymal Organs		✓	✓	✓			
Ligature			✓	✓	✓		
Muscles			✓	✓	✓		
Abdominal Wall/Linea Alba			✓	✓	✓	✓	
Hernias			✓	✓			
Fascias			✓	✓	✓	✓	
Tendons, Ligaments				✓	✓	✓	
Joint Capsule			✓	✓	✓		
Blood Vessels	✓	✓	✓	✓			
Dental	✓	✓	✓	✓			
Edge of Eyelid	✓	✓					

✓ Recommendation

Cats	USP METRIC						
	5/0 1	4/0 1.5	3/0 2	2/0 3	0 3.5	1 4	2 5
Skin		✓					
Subcutis		✓	✓				
Mucosa	✓	✓					
Small Intestine, Colon	✓	✓					
Bladder (Infected)	✓	✓					
Ureter/Urethra	✓						
Uterus		✓	✓				
Parenchymal Organs		✓	✓				
Ligature			✓	✓			
Muscles			✓	✓			
Abdominal Wall/Linea Alba			✓	✓			
Hernias			✓	✓			
Fascias			✓	✓			
Tendons, Ligaments			✓	✓			
Joint Capsule			✓				
Blood Vessels	✓						
Dental	✓	✓	✓				
Edge of Eyelid	✓	✓					

✓ Recommendation

Specialist Information

Tissue-specific Application Recommendations

Absorbable					
	Monosyn® Quick	Monosyn®	Novosyn® Quick	Novosyn®	MonoPlus®
	Monofilament Glyconate	Monofilament Glyconate	Braided Polyglactin 910 Coated	Braided Poly(glycolide-co-l-lactide 90/10) Coated	Monofilament Poly-p-dioxanone
Absorbable 50 % loss of tensile strength	Short-term ~ 6 – 7 days	Mid-term ~ 14 days	Short-term ~ 5 days	Mid-term ~ 21 days	Long-term ~ 35 days
Skin	+	++	+	+	++
Subcutis	+	++	+	++	+
Mucosa	++	++	++	+	+
Small Intestine	+	++	-	-	++
Colon	-	++	-	+	++
Bladder (Infected)	+	++	-	-	++
Ureter/Urethra	+	++	-	-	++
Uterus	++	++	-	+	+
Parenchymal Organs	-	++	-	+	+
Ligature	-	++	-	++	+
Muscles	-	++	-	++	++
Abdominal Wall/Linea Alba	-	+	-	+	++
Hernias	-	-	-	-	+
Fascias	-	+	-	-	++
Tendons, Ligaments	-	-	-	-	++
Joint Capsule	-	-	-	+	++
Blood Vessels	-	-	-	-	++
Dental	++	++	++	+	+
Edge of Eyelid	-	++	+	+	+
Eye	-	-	-	++	-

Material of choice ++ very good + good - unsuitable

Non-absorbable				
	Dafilon®	Supramid®	PremiCron®	Optilene®
	Monofilament Polyamide 6/6.6	Pseudo-monofilament Polyamide 6/6.6	Braided Polyester Coated	Polypropylene Polyethylene
Skin	++	++	+	++
Subcutis	-	-	-	-
Mucosa	+	+	+	+
Small Intestine	-	-	-	-
Colon	-	-	-	-
Bladder (Infected)	-	-	-	-
Ureter/Urethra	-	-	-	-
Uterus	-	-	-	-
Parenchymal Organs	-	-	-	-
Ligature	+	+	+	+
Muscles	-	-	-	-
Abdominal Wall/Linea Alba	+	+	+	+
Hernias	+	+	+	++
Fascias	+	+	+	++
Tendons, Ligaments	+	+	+	++
Joint Capsule	+	+	+	++
Blood Vessels	+	-	+	++
Dental	+	+	+	++
Edge of Eyelid	++	-	-	++
Eye	++	-	+	++

Material of choice ++ very good + good - unsuitable

Specialist Information

Pharmacopoeia

Strength Classification for Surgical Material

USP	METRIC	Thread Diameter (mm)
12-0	0.01	0.001-0.009
11-0	0.1	0.010-0.019
10-0	0.2	0.020-0.029
9-0	0.3	0.030-0.039
8-0	0.4	0.040-0.049
7-0	0.5	0.050-0.069
6-0	0.7	0.070-0.099
5-0	1	0.100-0.149
4-0	1.5	0.150-0.199
3-0	2	0.200-0.249
2-0	2.5	0.250-0.299
2-0	3	0.300-0.349
0	3.5	0.350-0.399
1	4	0.400-0.499
2	5	0.500-0.599
3	6	0.600-0.699
5	7	0.700-0.799

USP – United States Pharmacopoeia

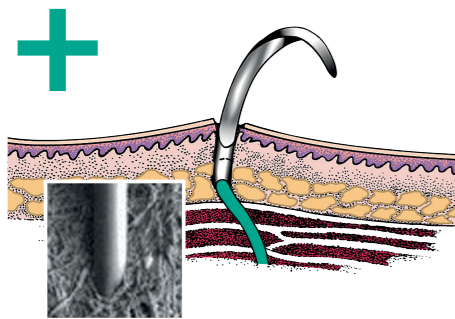
In the classification of the United States Pharmacopoeia, the classifications are randomly made and are not directly related to the thread diameter.

METRIC – European Pharmacopoeia

In the strength specification of the European Pharmacopoeia, the filament diameters are given in 1/10 mm. Thus, a 1 metric thread is 0.1 mm thick.

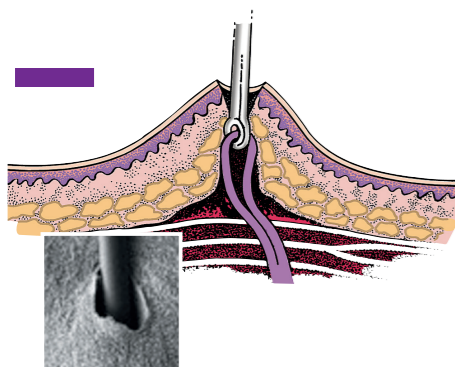
The description allows precise conclusions to be drawn about the filament diameter.

In the market, the historically developed USP thickness specifications have become established worldwide. For this reason, the USP value is highlighted in the packaging marking. However, the metric value is still indicated.



Atraumatic Needle-thread Combinations

- Minimal wound trauma
- Secure union of needle and thread
- Smooth transition between needle and thread
- Always new, sterile and sharp needles
- No time consuming threading
- Needle and thread diameter determined according to the indication



Spring Eye Needles – Traumatic

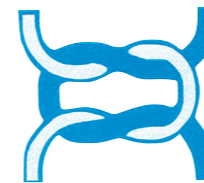
- Wound trauma through doubling of the thread
- Damage to the thread caused by catching in the spring eye
- No secure fit of the thread in the needle eye
- Time consuming threading of the thread in the normal eye

Specialist Information

Knot Types and Techniques

Knot Types

Correct



Square knot, weaver's knot

- Secure closure
- Good for ligatures

Incorrect



The granny knot

- Unreliable
- Tends to loosen

Correct



Surgical knot

- Good tension
- Not for ligatures

Correct

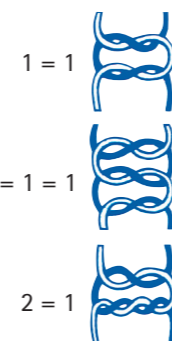


Sliding knot

- Good for knots deep down
- Good for ligatures

Knot Technique

Correct



Incorrect



1 = 1 throws are in the opposite direction (sailer's knot = weaver's knot)

1 x 1 throws are not in the opposite direction (known as a woman's knot)

Tips for the Right Knot

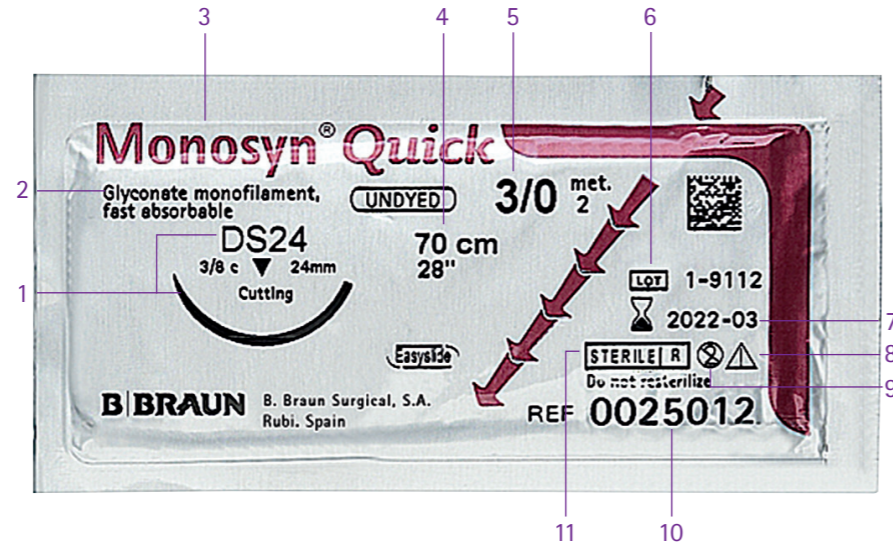
- The knot should not be placed directly on the wound edge, but parallel to it in order to avoid wound irritation.
- Unnecessary friction and manipulation of the suture material should be avoided (risk of thread breakage).
- The choice of knot depends on the suture material and indication.
- Knots and ligatures should be tensioned to ensure the necessary strength and help to prevent subsequent slipping.
- Ligatures require complete occlusion of vessels, while a sutured wound tissue strangulation should be avoided to prevent ischemia and necrosis.
- Suture thickness, number of knots, and length of endings determine the size of the knots and thus the irritation of the tissue. The selection of the correct thread thickness and the number of knots should therefore be suitable for the indication. The ends should be shortened to 3 mm for synthetic material.

Specialist Information

Suture Material Packaging

Labelling of the Packaging and Film

- 1 Needle description and illustration
- 2 Description of the thread / material
- 3 Product name
- 4 Thread length
- 5 Thread diameter
- 6 Batch number
- 7 Use by: Year and month
- 8 Observe the instructions for use
- 9 Do not re-sterilise, single-use product
- 10 Article number
- 11 Sterilisation method



Explanation of the Symbols

For single use only



Use by: Year and month



Sterilization by ethylene oxide (EO)



Sterilization by gamma irradiation (R)



CE mark and identification number of the notified body.

The product complies with the requirements of the Medical Device Directive 93/42/EEC



Batch number



Please observe the instructions for use



Article number/order number



Handling Steps

Open non-sterile outer package

RacePack®



DDP (Direct Dispense Packaging)



Transfer to sterile field



Tear off opening system, indicated by coloured arrows



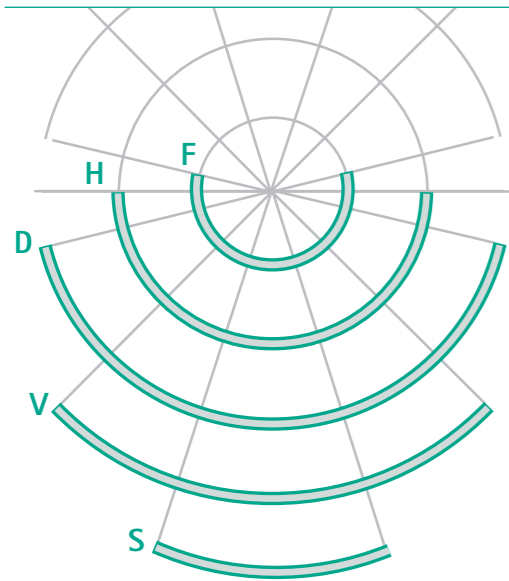
Quick and direct gripping of the needle



Specialist Information

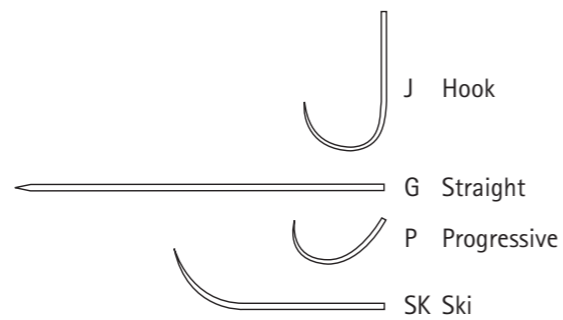
Needles for Veterinary Surgery

Needle Angle of Curvature



- S 1/8 circle
- V 1/4 circle
- D 3/8 circle
- H 1/2 circle
- F 5/8 circle

Others



A	B	C	12	D
Needle curvature	Needle body	Needle tip	Needle length	Further information
S 1/8 circle	G trapezoidal micro engraved body	T trocar tip	The numbers indicate the distance in mm between the needle tip and needle end, measured on the external curve of the needle.	f thin bodied needle
V 1/4 circle	R round body	N blunt tip		ff extra thin bodied needle
D 3/8 circle	S cutting	S cutting tip		s strong needle body
H 1/2 circle	L lancet	C short, cutting tip		ss very strong needle body
F 5/8 circle		M micro-point		v break-off needle
G straight		MP microtip/precision		b black needle
P progressive/asymptotic		m micro-needle		TO take off removable needle, with a straight tug of the needle holder, the needle can be removed from the suture fiber
J hook		mV micro vascular		
SK ski				

- Easyslide** 300 Quality Steel
- Easyslide B** Easyblack Black, glare-free needles
- Dermaslide** Dermaslide® Needle especially for skin closure

- CV Pass** CV-Pass Needles for cardiovascular surgery
- CV Pass easyblack** CV-Pass easyblack Black, glare-free needles for cardiovascular surgery

Example:
HRT 37s = 1/2 circle round-bodied needle with trocar tip, length 37 mm, strong needle body

Needle Overview

Cutting Needles

DS HS

Cutaneous needles: The three edged external cutting body of the needle can be used for suturing tough tissue. The three edges run along the entire needle length and provide optimum piercing capability alongside a good cosmetic result.



Cutting Needles with Microtips

DSMP / DGMP NEW

The cutting tip of this slimline precision needle is hand-cut and, with minimal trauma, allows tissue penetration, fine sutures in tough tissue and good cosmetic results.



Round-bodied Needles

HR GR

The round body of the needle tapers into a fine, sharp needle tip. The body flattens out in the middle section of the needle, which ensures a secure fit in the needle holder. Round-bodied needles only pierce the tissue, they do not cut it, so they are suitable for suturing soft tissue.



Round-bodied Needle with Trocar Tip

DRT HRT

The round-bodied needle has a four-sided cutting tip. This allows tough tissue to be easily pierced with minimal trauma.



Round-bodied Needle with Short, Cutting Tip

HRC DRC

The specially shaped round-bodied needle with short cut tip makes tough tissue easier to pierce. The specialist needle for fine anastomoses and difficult tissue conditions.



Lancet (Spatula) Needles

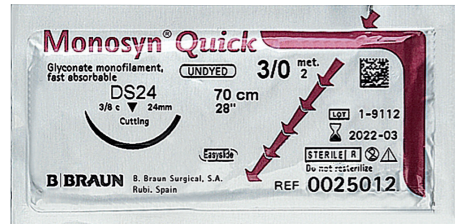
DLM

The lancet needle is a variant of the spatula needle. Its special needle tip is designed to pass through ophthalmic structures without damaging the upper and lower layer of stroma.



Monosyn® Quick

Absorbable Suture Material



Monosyn® Quick

~ 6 - 7 days - 50% tensile strength retention

- Good handling properties
- Short absorption time
- High knot pull tensile strength
- Good flexibility and elongation

Structure:	Monofilament, uncoated
Chemical composition:	Glyconate
Diameter:	USP 6/0 – USP 1
Colour:	Undyed
Knot tensile strength retention:	~ 6 - 7 days p. i. 50%
Mass absorption:	~ 56 days

Indications

- Intracutaneous skin closure
- Gynecology, urology
- Dental surgery

Needle		Thread	USP (METRIC)								
Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)
1/2 Circle Round-bodied Needle											
			45 undyed		C0025194	C0025195					
			70 undyed		C0025051	C0025052	C0025053				
			70 undyed			C0025245	C0025246				
			70 undyed			C0025057	C0025058	C0025059			

Needle		Thread	USP (METRIC)								
Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)
1/2 Circle Round-bodied Needle, Trocar Tip											
			70 undyed		C0025152						
3/8 Circle Cutting Needle											
			45 undyed		C0025135						
			70 undyed			C0025007	C0025008				
			70 undyed			C0025011	C0025012	C0025013			
3/8 Circle Cutting Needle, Precision Tip											
			45 undyed		C0025023	C0025024					
			45 undyed			C0025028	C0025029				
			45 undyed			C0025031					
			70 undyed			C0025036	C0025037				

C = 36 pack B = 24 pack G = 12 pack



Monosyn®





~ 14 days - 50% tensile strength retention






- Wide indication field
- High knot pull tensile strength
- For universal use in soft tissue surgery and intracutaneous sutures. Monosyn® is comparable to a braided suture in upper-GI tract and small bowel anastomosis.
- Wide range of needle-thread combinations

Indications

- Gynecology, urology, gastro. tract
- Skin, mucosa
- Sub- and intracutaneous sutures







Structure:	Monofilament, uncoated
Chemical composition:	Glyconate
Diameter:	USP 7/0 – USP 2
Colour:	Undyed, dyed
Knot tensile strength retention:	~ 14 days p. i. 50%
Mass absorption:	~ 60 - 90 days






Needle	Thread	USP (METRIC)										
		Length mm	Diameter Microns	Length cm	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)
1/2 Circle Round-bodied Needle												
	70 violet				C2022003 G2022003	C2022004 G2022004						
	70 violet					C2022014 G2022014	C2022015 G2022015	C2022016				
	70 violet					C2022024	C2022025 G2022025	C2022026 G2022026	C2022027			
	70 violet						C0022085	C2022086	C0022087			

Needle	Thread	USP (METRIC)										
		Length mm	Diameter Microns	Length cm	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)
1/2 Circle Round-bodied Needle												
	70 violet								C2022035	C0022036	C2022037	
	70 violet								C2022046 G2022046	C2022047	C2022048	
1/2 Circle Cutting Needle												
	70 violet								C2022236	C2022237		
	70 violet									C2022242	C2022243	
	70 violet									C2022247	C2022248	C2022249

C = 36 pack B = 24 pack G = 12 pack



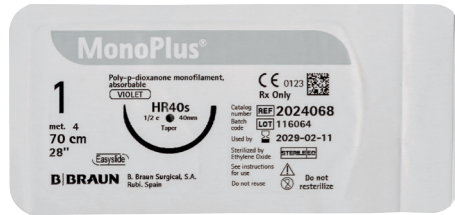
Needle			Thread	USP (METRIC)								
Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)	
3/8 Circle Round-bodied Needle, Short Cutting Tip												
			70 violet	C0022392	C0022403							
			70 violet			C2022354	C2022355					
1/2 Circle Round-bodied Needle, Trocar Tip												
			70 violet	C0022323 G0022323	C0022324							
			70 violet			C2022305	C2022306					
3/8 Circle Round-bodied Needle, Trocar Tip												
			70 violet	C0022343								
			70 violet				C2022366					

Needle			Thread	USP (METRIC)								
Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)	
3/8 Circle Cutting Needle												
			45 violet		C2022419							
			70 violet			C2022204 G2022204	C2022205 G2022205					
			70 violet			C2022214	C2022215 G2022215	C2022216 G2022216	C2022217 G2022217			
			70 violet						C2022232	C2022233		
3/8 Circle Cutting Needle, Precision Tip												
			45 undyed	C0023602	C2023603							
Pre Cuts												
	3 threads of 45 cm		3 x 45 violet	C0020005	C0020006 G0020006	C0020007						

C = 36 pack B = 24 pack G = 12 pack

MonoPlus®

Absorbable Suture Material



MonoPlus®

~ 35 days - 50% tensile strength retention

- Degradation profile designed where extended wound support is desirable
- Wide range of needle-thread combinations
- Good knot pull tensile strength retention

Indications

- Orthopedic surgery, capsular suturing
- Colon surgery
- Abdominal wall closure

Structure:	Monofilament, uncoated
Chemical composition:	Poly-p-dioxanone
Diameter:	USP 7/0 - USP 2
Colour:	Violet
Knot tensile strength retention:	~ 35 days p. i. 50%
Mass absorption:	~ 180 - 210 days

Needle		Thread	USP (METRIC)								
Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)
1/2 Circle Round-bodied Needle											
	70 violet						C0024205	C0024206	C0024207		
	70 violet			C0024013	C0024014	C0024015					
	70 violet							C0024131			
	70 violet				C2024134	C2024135 G2024135	C0024136				
	70 violet					C2024025	C2024026 G2024026	C2024027 G2024027			

C = 36 pack B = 24 pack G = 12 pack

Needle		Thread	USP (METRIC)								
Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)
1/2 Circle Round-bodied Needle											
	70 violet						C0024085	C2024086	C2024087		
	70 violet							C2024036	C2024037	C0024038	
	70 violet								C2024057	C2024058 G0024058	
	150 violet										B0024098
1/2 Circle Round-bodied Needle, Trocar Tip											
	70 violet				C0024283	C0024284					
	70 violet					C0024294	C0024295				
	70 violet 90 violet							C0024316		C0024517	C0024518
1/2 Circle Cutting Needle											
	70 violet						C0024185	C2024186	C2024187		
3/8 Circle Cutting Needle											
	70 violet						C2024520 G2024520	C2024990			

Novosyn® Quick

Absorbable Suture Material



Novosyn® Quick

~ 5 days - 50% tensile strength retention

- High suture tensile strength
- Optimal handling in terms of smooth surface and pliability
- Good flexibility performance

Indications

- Intracutaneous skin closure
- Dental surgery

Thread composition:	Braided
Material:	Polyglactin 910
Coating:	Polyglactin 370 + calcium stearate
Metric:	0.7 - 4
USP:	6/0 - 2
Colour:	Undyed
Loss of tensile strength:	~ 5 days 50%

Needle			Thread	USP (METRIC)							
Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)
1/2 Circle Round-bodied Needle											
			70 undyed		C3046012	C3046013					
			70 undyed			C3046029					

Needle			Thread	USP (METRIC)							
Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)
3/8 Circle Cutting Needle											
			70 undyed		C3046212	C3046213	C3046421				
			70 undyed				C3046235	C3046236			



Novosyn®


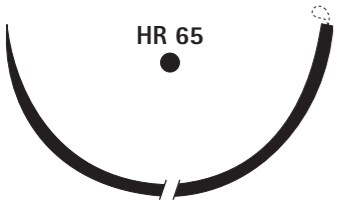

~ 21 days - 50% tensile strength retention

- Good knot pull tensile strength
- Good flexibility performance









Indications

- Ligatures
- Ophthalmology
- Gynecology, urology, abdominal wall closure

Structure:	Polyfilament braided, coated
Chemical composition:	Poly(glycolide-co-l-lactide 90/10)
Coating:	Poly(glycolide-co-l-lactide 35/65) + CaSt
Diameter:	USP 8/0 – USP 2
Colour:	Violet
Knot tensile strength retention:	~ 21 days p. i. 50%
Mass absorption:	~ 56 - 70 days

Needle	Thread	USP (METRIC)									
Angle	Length mm	Diameter Microns	Length cm Color	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)	3 (6)	4 (6)
1/2 Circle Round-bodied Needle											
	70 violet				C0068047N1	C0068048N1	C0068049				
	240 violet							B0068930			
1/2 Circle Round-bodied Needle, Short Cutting Tip											
	70 violet				C0068335	C0068336	C0068343				

C = 36 pack B = 24 pack G = 12 pack

Needle	Thread	USP (METRIC)									
Angle	Length mm	Diameter Microns	Length cm Color	8/0 (0.4)	7/0 (0.5)	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)
Pre Cuts											
2 threads of 70 cm	2 x 70 violet					C0058406	C0058407	C0058409			
1/2 Circle Round-bodied Needle											
	70 violet								C0068013		
	70 violet								C0068029N1	C0068030N1	C0068031N1
	70 violet								C0068041N1 G0068041N1	C0068042N1 G0068042N1	C0068043N1
Angle	Length mm	Diameter Microns	Length cm Color	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)	3 (6)
1/2 Circle Round-bodied Needle											
	70 violet								C0068096N1	C0068097N1	C0068098
1/2 Circle Cutting Needle											
	45 violet				C0068204						
	70 violet							C0068290	C0068291		
	70 violet							C0068298	C0068296N1	C0068297	
	90 violet										B0068463

Novosyn®

Absorbable Suture Material

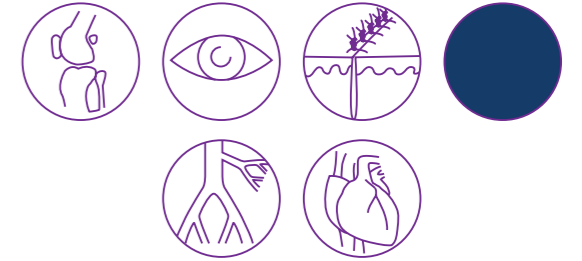


Needle			Thread	USP (METRIC)								
Angle	Length mm	Diameter Microns	Length cm Color	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)	3 (6)	
3/8 Circle Cutting Needle												
			70 violet		C0068420 G0068420	C0068421N1						
			70 violet			C0068235N1 G0068235N1	C0068236N1 G0068236N1	C0068237 G0068237				
			70 violet				C0068247N1	C0068248	C0068249			
Angle	Length mm	Diameter Microns	Length cm Color	8/0 (0.4)	7/0 (0.5)	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	
1/4 Circle Lancet Needle, Micro Tip												
			45 violet				G0068735					
3/8 Circle Round-bodied Needle, Micro Tip												
			35 violet	G0068146								
3/8 Circle Lancet Needle, Micro Tip												
			15 violet	G0068615								
			30 violet		G0068621							
			45 violet		G0068711							

C = 36 pack B = 24 pack G = 12 pack

Optilene®

Non-Absorbable Suture Material



Optilene®

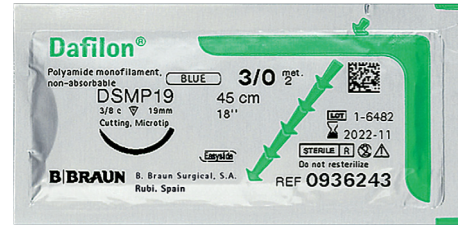
- Soft and smooth
- Elasticity and elongation properties
- Controlled knot run-down
- High suture tensile strength

Indications

- Hernias and vessel surgery
- Tendons and capsular suturing
- Skin closure

Structure:	Monofilament, uncoated
Chemical composition:	Polypropylene / Polyethylene
Diameter:	USP 10/0 – USP 2
Colour:	Blue
Knot tensile strength retention:	Non-absorbable

Needle			Thread	USP (METRIC)								
Angle	Length mm	Diameter Microns	Length cm Color	8/0 (0.4)	7/0 (0.5)	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	
1/2 Circle Round-bodied Needle												
			75 blue				C3090040	C3090041	C3090042	C3090043		
3/8 Circle Cutting Needle												
			45 blue			C3090206	C3090207	C3090208				
			75 blue				C3090520	C3090521				
			75 blue				C3090234	C3090235	C3090236			
			75 blue							C3090247	C3090248	



Dafilon®

- Soft and smooth
- Smooth tissue passage

Structure:	Monofilament, uncoated
Chemical composition:	Polyamide (Nylon)
Diameter:	USP 11/0 – USP 5
Colour:	Blue, black
Knot tensile strength retention:	Non absorbable

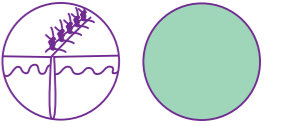
Indications

- Skin closure
- Fixation of drains/catheters
- Ophthalmology

Needle	Thread	USP (METRIC)											
		Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)
3/8 Circle Cutting Needle													
	75 blue			C0935190	C0933244	C0933252							
	75 blue				C0933384	C0933392	C0933406						
	75 blue					C0935468	C0935476	C0935484	C0935492				
	90 blue												B0934579

Needle	Thread	USP (METRIC)											
		Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)
Straight Cutting Needle													
	90 blue								C0935611			C0935573	
	75 blue							C0932655	C0932663				
3/8 Circle Cutting Needle, Precision Tip													
	45 blue				C0936022								
	75 blue							C0936812	C0936820				
Angle	Length mm	Diameter Microns	Length cm Color	10/0 (0.2)	9/0 (0.3)	8/0 (0.4)	7/0 (0.5)	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)		
3/8 Circle Lancet Needle, Micro Tip													
	15 black												G1118722

C = 36 pack B = 24 pack G = 12 pack



Supramid®

- High tensile strength
- Soft and smooth
- Good handling properties



Indications

- Skin

Structure:	Pseudomonofilament uncoated
Chemical composition:	Polyamide 6.6
Coating:	Polyamide 6.6
Diameter:	USP 2 – USP 6/0
Colour:	Black, white
Knot tensile strength retention:	Non-absorbable
Mass absorption:	2 – 4 years

Needle		Thread	USP (METRIC)								
Angle	Length mm	Diameter Microns	Length cm Color	6/0 (0.7)	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)

1/2 Circle Cutting Needle








	45 black			C0712248	C0712256	C0712264					
	75 black					C0712418	C0712426	C0712434			

3/8 Circle Cutting Needle

	45 black			C0712124	C0712132						
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Needle		Thread	USP (METRIC)								
Angle	Length mm	Diameter Microns	Length cm Color	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)	3 (6)

3/8 Circle Cutting Needle

	45 black					C0712213					
	45 black						C0712361				
	75 black					C0714208	C0714216 G0714216				
	45 white							C0712477		C0712493	
	75 white								C0694487		
	75 black							C0712558	C0712566	C0712574	
											

C = 36 pack B = 24 pack G = 12 pack

PremiCron®

Non-absorbable Suture Material



PremiCron®

- Good knot security
- Good handling

Indications

- Cardiological surgery
- Hernias
- Orthopedic surgery

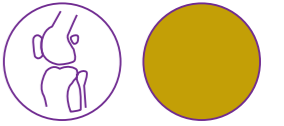
Structure:	Polyfilament braided coated
Chemical composition:	Polyester
Coating:	Silicone
Diameter:	USP 5 – USP 6/0
Colour:	Green, white
Knot tensile strength retention:	Non-absorbable

Needle			Thread	USP (METRIC)							
Angle	Length mm	Diameter Microns	Length cm Color	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)	3 (6)
3/8 Circle Cutting Needle											
Easyslide DS 19	45 green					C0026553					
			75 green		C0026231						
Easyslide DS 30	75 green					C0026531	C0026532				
Easyslide DS 39	75 green									C0026332	
1/2 Circle Cutting Needle											
Easyslide HS 37s	75 green									C0026468	

C = 36 pack B = 24 pack G = 12 pack

Steelex®

Non-absorbable Suture Material



Steelex®

- High conductive flexible twisted steel wire

Indications

- Orthopedic surgery
- Tendons
- Ligaments
- Sternal sutures
- Skin

Structure:	Polyfilament twisted
Chemical composition:	Corrosion-resistant surgical steel
Diameter:	USP 2/0 – USP 5/0
Colour:	Metallic
Knot tensile strength retention:	Non-absorbable

Needle			Thread	USP (METRIC)							
Angle	Length mm	Diameter Microns	Length cm Color	5/0 (1)	4/0 (1.5)	3/0 (2)	2/0 (3)	0 (3.5)	1 (4)	2 (5)	3 (6)
3/8 Circle Cutting Needle											
Easyslide DS 19	45 metallic										
			G0612197								
Easyslide DS 24	45 metallic				G0612340	G0612359					
Easyslide HS 26	45 metallic						G0612413				
Easyslide DS 30	45 metallic						G0612472				

B. Braun Sutures

Dermaslide® – DGMP

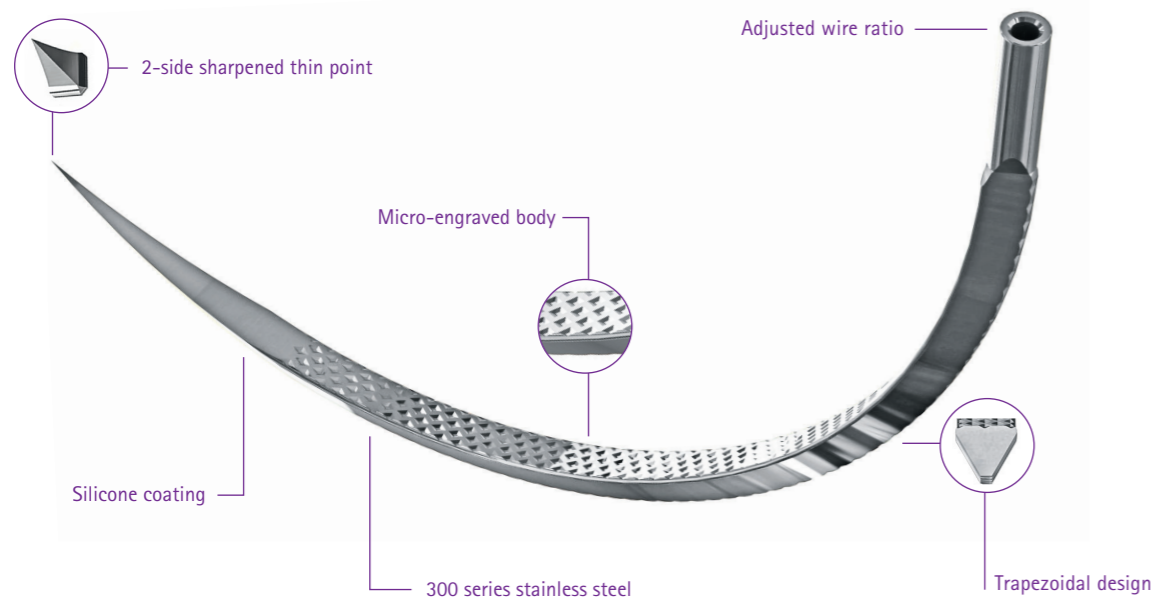
The New Needle with Micro-engraved Body

Advantages

- Smooth passage through tissue
- Maintains sharpness
- Good stability in needle holder

Available for:

- Optilene®
- Dafilon®
- Monosyn®
- Monosyn® Quick



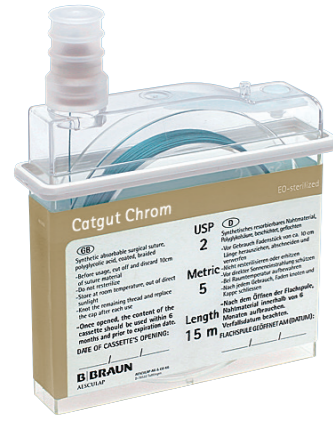
Cassettes



USP metric	Length m	4/0 1.5	3/0 2	2/0 2.5	0 3.5	1 4	2 5	3 – 4 6	5 7	6 8
Safil® C		~ 18 days								
Cassette										
	15	F1038102	F1038103	F1038104	F1038105	F1038106	F1038107			
	25							F1038108	F1038109	F1038110
MonoPlus®		~ 35 days								
Cassette										
	25	F0024270	F0024271	F0024272	F0024273	F0024274	F0024275			
Dafilon®		non-absorbable								
Cassette, blue										
	100		F1934040	F1934058	F1934066	F1934074				
	75							F1934082	F1934090	
Supramid®		non-absorbable								
Cassette, white										
	100		F1184040	F1184059						
	75					F1184075				
	50							F1184091		
	25									F1184113
Steelex®		non-absorbable								
Cassette										
	50					F1614061				
	25						F1614070	F1614088		
	20								F1614096	

Cassettes - Absorbable Sutures

Catgut® Chrom



- Economical
- B. Braun quality

Natural absorbable suture made of pure collagen, manufactured from bovine intestine, from designated BSE free countries.

Catgut® Chrom Description

Structure	Monofilament Twisted Treated
Chemical composition	Natural purified collagen Chrome treated
Colour	Brown
Knot tensile strength retention	~ 14 – 18 days p.i. 50 %
Mass absorption	~ 90 – 120 days
Indications	<ul style="list-style-type: none"> ■ Subcutis ■ Ligature ovary ■ Uterus
Contra-indications	Indications that require permanent support by implan-tation of long-term or non-absorbable suture material.
Recommended fixation	2 = 1 = 1 = 1 1 = 1 = 1 = 1

Catgut® Chrom		USP metric									
Length m	4/0 2	3/0 3	2/0 3.5	0 4	1 5	2 6	3 7	4 8	5 9	6 10	
100	F1154036	F1154044	F1154052								
75				F1154060	F1154079						
50						F1154087	F1154095				
25								F1154109	F1154117	F1154125	

Histoacryl® | Histoacryl® Flexible



Histoacryl®

Tissue adhesive consisting of monomeric n-butyl-2-cyanoacrylate

Indications

- Closure of skin for small surgical incisions
- Mesh fixation: Fixation of hernia meshes
- Sclerotherapy

Properties

- Easy and precise handling
- Effective microbial barrier
- Ready to use ampoule
- No need of refrigeration
- Histoacryl® can be used for closing of endoscopic incisions

Description	Size / Content	Packaging Unit	Art. No.
Histoacryl® blue	5 ampoules of 0.5 ml	5 units	1050052



Histoacryl® Flexible

Tissue adhesive consisting of n-butyl 2-cyanoacrylate and a softener

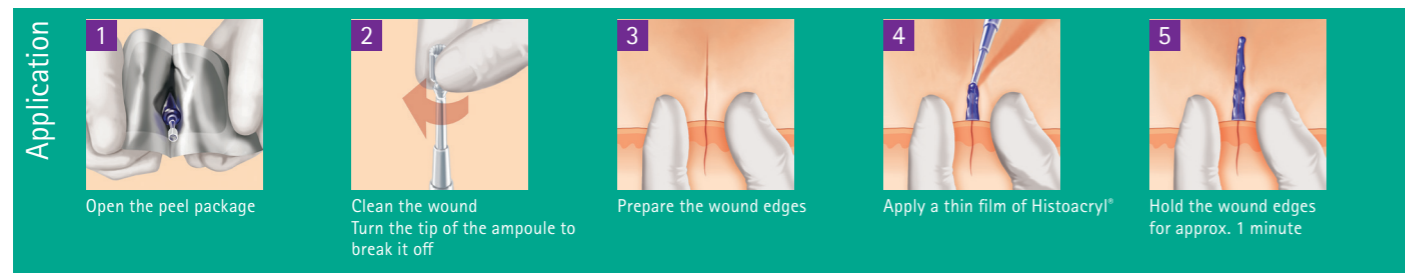
Indications

- Allows closure of incisions up to 25 cm

Properties

- Ease of use: Ready-to-use product
- Microbial barrier: Polymerized Histoacryl® Flexible adhesive films are an effective microbial barrier
- Good cosmetics: Histoacryl® Flexible yields good cosmetic results

Description	Size / Content	Packaging Unit	Art. No.
Histoacryl® Flexible	5 ampoules of 0.5 ml	5 units	1051250P



Optilene® Mesh

Mesh for Universal Use



Optilene® Mesh

Mesh for the Repair of Incisional and Inguinal Hernias

- Universally applicable
- Large pores
- Reduced weight
- Blue unfolding lines
- For all open techniques in incisional hernia surgery (onlay, sublay)
- For all open and laparoscopic techniques in inguinal hernia surgery (Lichtenstein, TEP, TAPP)

Material	Polypropylene
Structure	Monofilament
Basic weight	60 g/m ²
Pore size / thickness	1.5 mm / 0.53 mm
Indication	Inguinal hernia, incisional hernia
Contraindication	Optilene® Mesh must not be inserted into contaminated or infectious tissue.
Sterilization method	Ethylene oxide

Description	Size	Art. No.
Optilene® Mesh	5 x 10 cm	1065020UNI

TIP For fixing, see also Histoacryl®

Manipler® AZ 35 W

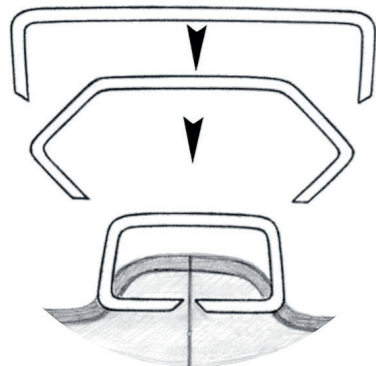
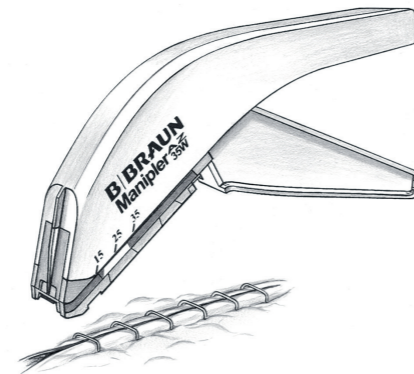
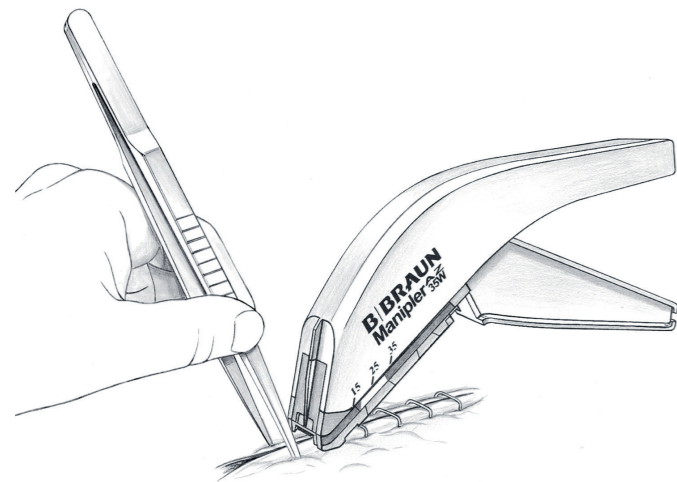
The Fast Alternative to Sutures



Manipler® AZ 35 W

Single-use Skin Stapler with 35 Wide Staples.
Staple Closing Size: Width 6.9 mm, Height 3.6 mm

- Well balanced weight and ergonomic design
- Slim grip
- Special angled head
- Flexible placement angle
- Alignment indicator



Description	Art. No.
Manipler® AZ 35 W	783100
Reusable skin stapler remover	783101

Special Products

Hemostasis



Lyostypt®

A Wet-stable Collagen Hemostat. Collagen Leads to Thrombocyte Adhesion and to Activation of Coagulation Factor XII.

- Absorbable within ~ 3 – 4 weeks
- Fast and efficient hemostasis helps reduce blood loss and saves time
- High degree of absorption means less material is needed
- Good affinity to bleeding surfaces
- Can be used as a carrier material for antibiotics or coagulation agents

Indications

- Capillary bleeding
- Parenchymal bleeding

Description	Art. No.
Lyostypt® 3 x 5 cm	1069128

Bone Wax – Hemostat for Bone Bleeding

Sterile Mixture of Natural Beeswax and Vaseline

- Mechanical hemostasis in bones
- Haemostasis achieved by tamponade effect
- Achieves mechanical occlusion of intrasosseous vessels
- Soft to shape and apply "only hand-warm"

Indications

- Thoracic surgery (sternum and ribs)
- Dental, oral and jaw surgery
- Orthopedics and traumatology
- Neurosurgery (trepanation)



Description	Art. No.
Bonewax 24 x 2,5 g	1029754

B. Braun Medical Ltd | VetCare | Thorncliffe Park | Sheffield | S35 2PW
Tel 0114 225 9000 | Fax 0114 225 9111 | www.bbraun-vetcare.co.uk

XX-SMSP-06-22

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