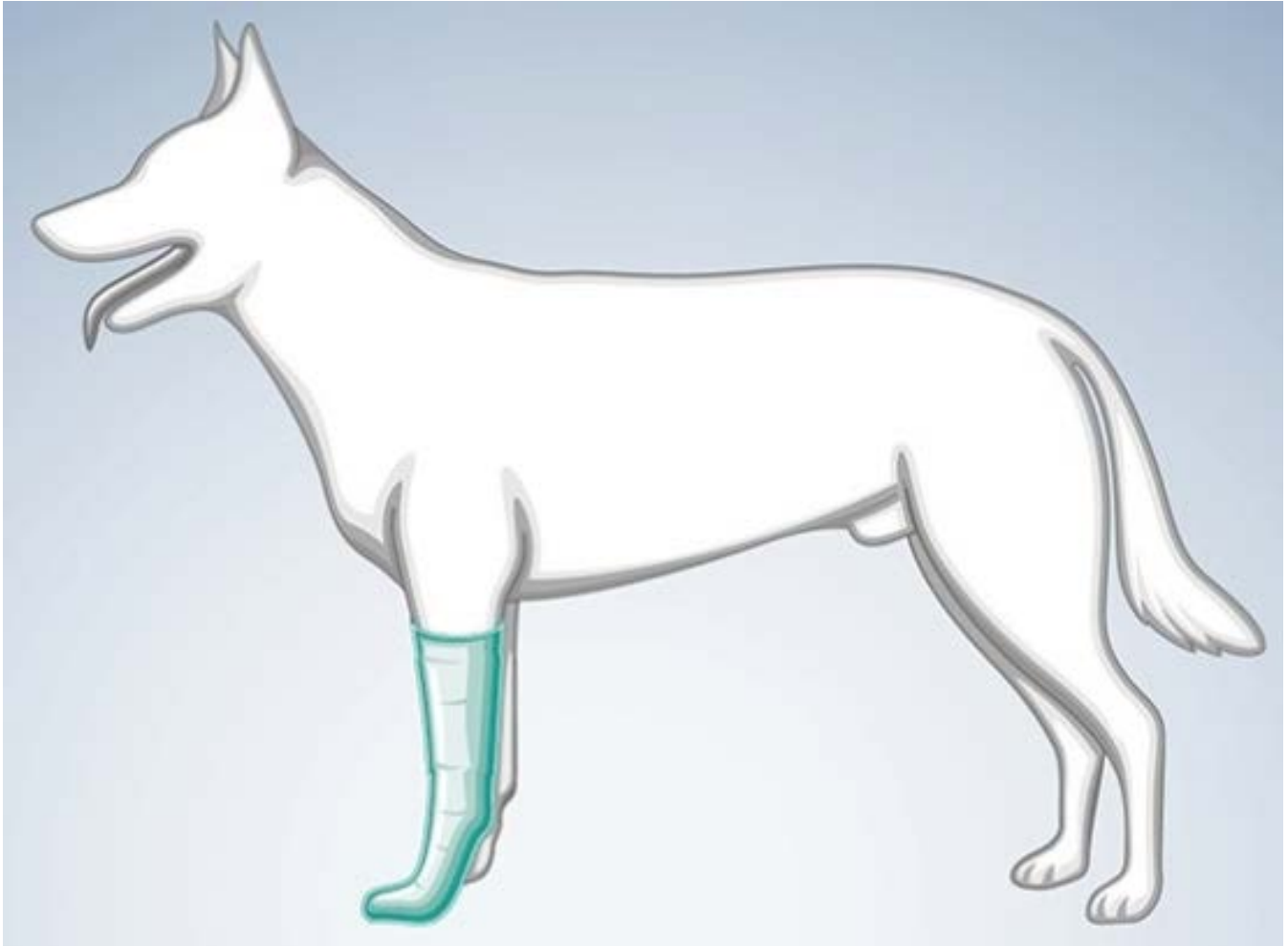


WOUND CLOSURE AND MANAGEMENT



INTRODUCTION



EVERYTHING FOR WOUND THERAPY AND WOUND CLOSURE

Wound closure and wound management are integral parts of everyday treatment in a medical practice.

Countless products are used depending on whether the wound is Surgical, Acute or Chronic.

We support the wound management pathway with an extensive range of innovative, complimentary and user friendly products. Whether you need to close a surgical wound, ligate a blood vessel, correct an entropion or decontaminate an infected wound, B. Braun is your partner of choice for wound management.

Our goal is to support the natural wound healing process in every situation, with products compatible to the indication and the patients' needs.

Section 9











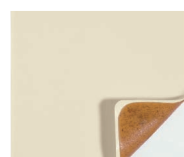

Wound Management

Closure Technology

Wound Management	
Prontosan® Wound Irrigation	
Askina® Dressings	
Askina® Bandages	
Closure Technology	
Overview	
Needled Sutures	
Suture Cassettes	
Histoacryl®	
Manipler® Stapler	
Haemostasis	
Bone Wax	
Gelita®	
Reconstruction	
Optilene® Mesh	
Premilene® Mesh	
Education	
Suture Practice Tools	

GRANULATING TO EPITHELIALISING WOUNDS

DRESSINGS FOR MOISTURE AND SURFACE MANAGEMENT

	Silicone Technology	Pressure ulcers	Arterial and venous leg ulcers	Surgical wounds	Traumatic wounds	2 nd degree burns	Superficial acute wounds	Skin grafts		
<div><div>LEGEND<div><div> low exuding wound</div><div> moderately exuding wound</div><div> heavily exuding wound</div></div><div><div> Low to moderately exuding wound</div><div> Moderately to heavily exuding wound</div></div></div></div>										
Askina® SilNet	✓	✓	✓	✓	✓	✓	✓	✓		Non-adherent: protects fragile granulation tissue Atraumatic removal Allows vertical passage of exudate through dressing Soft and conformable Compatible with topical treatments/vacuum therapy
Askina® DresSil	✓	✓	✓	✓	✓	✓	✓	✓		Rapid wicking properties Excellent fluid management Great adhesive qualities Atraumatic, painless removal Soft and conforming silicone foam
Askina® DresSil Border	✓	✓	✓	✓	✓	✓	✓	✓		Easy fixation due to adhesive border No secondary fixation required Soft and conforming silicone foam Stays in place while bathing your patient
Askina® Transorbent®		✓	✓	✓	✓	✓				Dry hydrogel technology Does not stick to the wound surface Cushioning effect due to the polyurethane foam Reduces risk of maceration Can be cut
Askina® THINSite		✓	✓	✓	✓	✓				Dry hydrogel technology Ultra thin (1 mm): superior flexibility, ideal for difficult anatomical contours Provides comfortable protection of the skin Easy removal without residues
Askina® Hydro		✓	✓	✓	✓	✓				Strong and long lasting absorption capacity High cohesive gel strength Less dressing residues in the wound bed Low risk of dressing “meltdown” and leakage Reduces odours
Askina® Biofilm Transparent		✓	✓	✓	✓	✓				Thin design that fits body contours Transparency allows visual control of the wound Easy to apply Stays in place while bathing your patient Can be worn for up to 7 days

POST OPERATIVE

SUPERFICIAL AND ACUTE WOUND DRESSINGS

Askina® Pad | Pad S



- Sterile
- Non adherent
- High absorption capacity
- Suitable for moderately exuding wounds
- Can be used as a secondary dressing for wide range of other dressings including infected wounds
- Askina® Pad S features a central hole suitable for use with tubes (up to 11mm in diameter) and a slit to wrap around tubing.

Askina® Soft



- Sterile
- Elastic wound dressing
- Breathable fleece material
- Skin friendly acrylic adhesive
- Non-adherent wound contact layer
- Easy to apply, even on difficult locations

Askina® Soft Clear



- Sterile
- Easy to apply even on difficult locations
- Skin friendly acrylic adhesive
- Stays in place while bathing your patient
- Bacteria proof barrier
- Visual control to view wound

Carbosorb®



- Sterile
- Easy to apply even on difficult locations
- Bacteria proof barrier
- Bacteria and malodorous absorption

FIBRINOUS TO GRANULATING WOUNDS

DRESSINGS FOR MOSITURE ABSORPTION

Askina® Foam



- Excellent fluid handling characteristics
 - Cost efficient: no need for frequent dressing changes
 - Enhances a moist wound environment
 - No adherence to the wound; atraumatic dressing changes
 - Visual control of exudate absorption
 - Does not leave pressure marks when used under compression therapy
 - Highly resistant: easy to remove, without leaving particles
-

Askina® Absorb

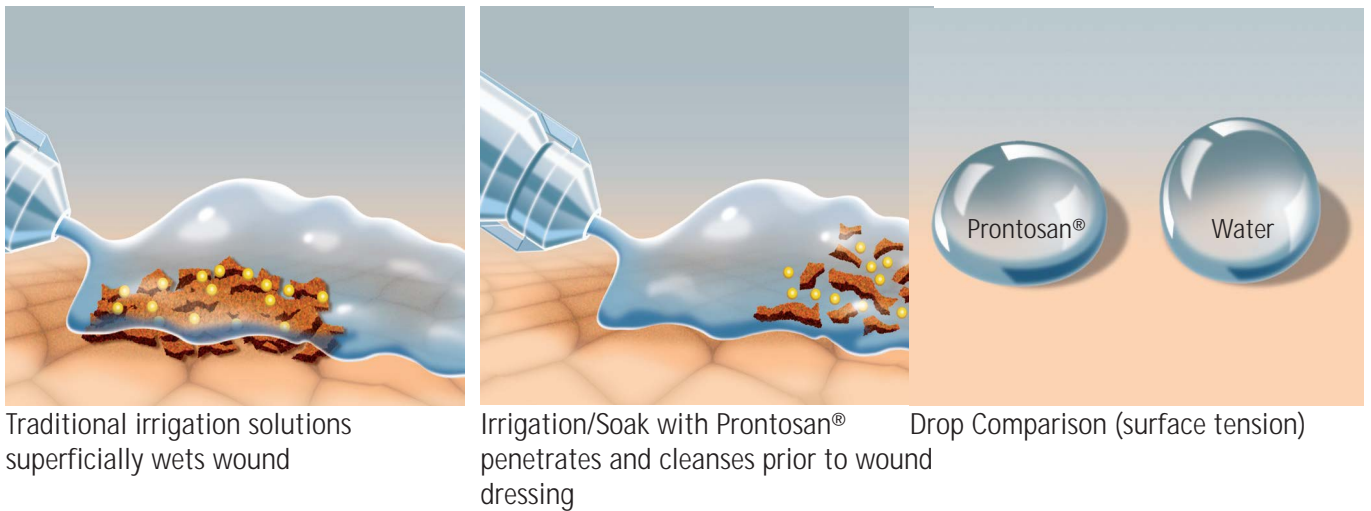


- High, long lasting absorption capacity
 - High retention (no sponge effect)
 - Gradual absorption without "Gel Lock"
 - Remains soft and flexible even when saturated
 - Low adherent wound contact surface
 - No "dry spill" of superabsorbent material
-

PRONTOSAN® WOUND IRRIGATION

Every wound can develop an infection, especially if there is a high-risk predisposition. Therefore, the risk of an infection should be assessed carefully considering the following criteria:

- Type of wound
- Wound condition (e.g. deep laceration with tissue loss)
- Slough and necrotic tissue
- Wound environment



THE ROLE OF WOUND CLEANSING IN WOUND BED PREPARATION

One of the most important principles of proper wound bed preparation is certainly wound cleansing, as only a clean wound can heal rapidly and without complications.

A vital tissue such as necrosis and fibrin coating, detritus and a high bacterial load can considerably affect wound healing, resulting in stagnation of the wound healing process.

It must be remembered that the treatment of a chronic wound can take several months, and therefore highly effective, gentle and patient-friendly wound cleansing is of great significance. Particular attention should therefore be given to the choice of wound cleansing agent.

PRONTOSAN® SOAK AND RINSE APPROACH

A 10 -15 minute soak and rinse approach allows time for the surfactant (Betaine) to loosen and remove wound debris. Polyhexanide, acts as a preservative and maintains product integrity for 8 weeks after opening. Prontosan® is a TGA registered product.

THE BENEFITS OF PRONTOSAN®

As biofilms are bound firmly to these surfaces, they can not be removed by simple rinsing

Advantages	Prontosan®	Saline	Water	Antiseptic
Reduction in bioburden	✓	✗	✗	✓
Safe for long term use	✓	✓	✓	✗
No inhibition of granulation tissue	✓	✓	✓	✗
Clinical evidence in reduction of pain and odour	✓	✗	✗	✗
Can be used up to 8 weeks after opening - cost effective	✓	✗	N/A	✗
Clinical evidence in reduction of infection rates	✓	✗	✗	✓
Clinical evidence in improved healing times	✓	✗	✗	✗



PRONTOSAN®

ONLY A CLEAN WOUND CAN HEAL. EXPERIENCE THE PRONTOSAN® EFFECT



PREVENTION OF INFECTION IN ACUTE AND CHRONIC WOUNDS

Prontosan® wound irrigation solution can be used for the prevention of infection in acute and chronic wounds including:

- Chronic Skin wounds
- Burns (I-II degree)
- Traumatic wounds
- Chemical wounds

A highly effective wound irrigation solution that removes wound coatings:

- Cost effective - Clinically proven to reduce healing time of chronic wounds^{1,2}
- Absorbs wound odours
- Can be used for up to 8 weeks after first opening (excludes 40ml solution)

Description	Size	Box Qty	Article No.
Prontosan® Wound Irrigation Solution	1000 mL	10pcs	400432
Prontosan® Wound Irrigation Solution	350 mL	10pcs	400431
Prontosan® Wound Irrigation Solution	40 mL	6pcs	400419

References: 1. Prontosan Wound Irrigation Solution / Prof. Marco Romanelli (Italy), April 2008, 2. Evaluating Prontosan in a Chronic Wound Care Setting / Gary Bain RN CNC MClined BN DipApSc (Australia), August 2009

PRONTOSAN® WOUND GEL

WOUND BED CLEANSER



- Sterile hydrogel
- Prevents biofilm formation
- Well-known substances with low allergenic potential
- Compatible with commonly used wound dressings
- Can be used up to 8 weeks after opening
- Painless application

Description	Size	Box Qty	Article No.
Prontosan® Wound Gel	30 mL	20pcs	400510

PRONTOSAN® WOUND SPRAY



- Unsterile solution
- Prevents biofilm formation
- Prevents MDRO contamination
- Well-known substances with low allergenic potential
- Can be used up to 12 months after opening
- Painless application

Description	Size	Box Qty	Article No.
Prontosan® Wound Spray	75 mL	20	400565

PRONTOSAN® WOUND GEL X

WOUND BED CLEANSER



While necrotic tissue and slough can be optimally removed by Prontosan® Wound Irrigation Solution, it is also necessary to remove heavy encrustations by keeping the wound moist for a longer period of time. This can be achieved by simply applying Prontosan® Wound Gel X with a secondary dressing.

Indications:

1. Cleansing, moistening and decontamination of skin wounds and burns
2. Traumatic wounds, Postoperative wounds, Chronic skin ulcers (e.g. venous, diabetic or pressure ulcers)
3. Thermal wounds, Chemical wounds (acid- and alkali-induced)
4. Radiation-induced wounds

- Sterile hydrogel
- Prevents biofilm formation
- Well-known substances with low allergenic potential
- Compatible with commonly used wound dressings
- Can be used up to 8 weeks after opening
- Painless application

Description	Size	Box Qty	Article No.
Prontosan® Wound-Gel X TUBE	250 grams	20pcs	400529
Prontosan® Wound-Gel X TUBE	50 grams	20pcs	400523

ASKINA® BARRIER CREAM

ASKINA® BARRIER CREAM ACTS AS A LASTING PROTECTIVE BARRIER ON SKIN



- Effective prevention of skin breakdown associated with incontinence
- Highly concentrated: small amounts will cover a large surface
- Does not reduce the absorbency of incontinent pads
- Does not reduce the adherence of fixation tapes and dressings
- Temporarily resists wash-off: no need for frequent application

Description	Size	Box Qty	Article No.
Askina® Barrier Cream	92 gm	10	4119212

ASKINA® ABSORB +

SUPERABSORBANT NON-ADHERANT WOUND DRESSING



Askina® Absorb+ is a highly absorbing dressing which can retain and lock large amounts of wound exudate and bacteria.

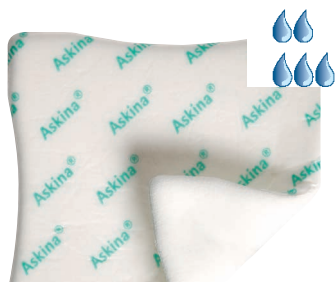
It consists of an inner pad made of strong water-retaining polymeric fibers encased in a non-woven outer pouch.

In contact with wound exudate, the liquid is converted and retained as a soft and flexible gel which helps to clean the wound and maintain a moist environment.

Description	Size (cm)	Box Qty	Article No.
Askina® Absorb +	10 x 10	10	3331010
Askina® Absorb +	10 x 20	10	3331210
Askina® Absorb +	20 x 20	5	3332005

ASKINA® FOAM

HYDROPHILIC FOAM DRESSING



Askina® Foam is a two layered non-adherent foam dressing consisting of:

- A soft hydrophilic polyurethane foam layer which is breathable and has a high fluid handling capacity (199 g/100 cm²)
- A thin, transparent and protective polyurethane film which is water impermeable and bacteria resistant

Askina® Foam Border is ideal for difficult to dress areas like elbows, knees and ankles. It has a film that extends beyond the perimeter of the foam to form an adhesive border.

Description	Size (cm)	Box Qty	Article No.
Askina® Foam	5 x 7	10	7240710
Askina® Foam	10 x 10	10	7241010
Askina® Foam	10 x 20	10	7241210
Askina® Foam	20 x 20	5	7242005
Askina® Foam	16 x 16	10	7231610

ASKINA® DRESSIL

3 IN 1 SILICONE FOAM WOUND DRESSING



Askina® DresSil is a self adherent foam dressing with soft silicone adhesive on one side and a vapour permeable waterproof film on the other. It combines the absorption capacity of the foam with the soft adhesion of the silicone contact layer.

- Minimises pain during dressing changes, reducing patient anxiety
- No stripping of epidermal cells during dressing changes
- Significant absorption capacity
- Easy monitoring of the wound

Indications:

Ulcers, Traumatic wounds and Burns (1st & 2nd degree).

How it works:

The exudate passes vertically into the foam layer through the silicone layer open structure. The exudate is absorbed quickly into the foam layer, thereby enhancing a moist wound environment. The excess moisture is evaporated through the semi-permeable backing film.

Description	Size (cm)	Box Qty	Article No.
Askina® DresSil	10 x 10	10	5291010
Askina® DresSil	10 x 20	10	5291210
Askina® DresSil	15 x 15	10	5291510
Askina® DresSil	20 x 20	5	5292005
Askina® DresSil Border	7.5 x 7.5	10	5397510
Askina® DresSil Border	10 x 10	3	5391003
Askina® DresSil Border	10 x 10	10	5391010
Askina® DresSil Border	15 x 15	10	5391510
Askina® DresSil Border	20 x 20	5	5392005

ASKINA® THINSITE®

THIN ABSORBING DRESSING WITH DRY HYDROGEL TECHNOLOGY



Askina® THINSite® is an ultra thin and highly conformable wound dressing.

It offers all the absorptive powers of thick dressings into one patient-preferred, flexible design.

The advanced dry hydrogel formula offers controlled absorption and provides superior fluid management for a longer period of time.

- Conforms and compensates for difficult anatomical contours
- Reduces friction during patient movement; helps prevent bunching or rolling
- Allows visual inspection of absorbed exudate
- Stays firmly in place
- Easy removal from delicate skin
- Does not leave adhesive residue on skin

Description	Size (cm)	Box Qty	Article No.
Askina® THINSite®	10 x 10	5	0072889U
Askina® THINSite®	10 x 10	10	0072888T
Askina® THINSite®	15 x 15	5	0072890V
Askina® THINSite®	15 x 15	10	0072894V

ASKINA® TRANSORBANT

FOAM DRESSING WITH DRY HYDROGEL LAYER



Askina® Transorbent® with dry hydrogel technology features a patented design that provides a unique absorption process. It is able to transfer fluid away from the wound, capture it, and eliminate the excess moisture.

- Superior absorption capacity
- Does not stick to the wound surface
- Cushioning effect due to the polyurethane foam
- Reduces risk of maceration by eliminating excess moisture
- Can be cut to individually adapted sizes and shapes



Indications:

- Slow healing wounds
- Traumatic wounds
- Surgical wounds
- 1st and 2nd degree burns
- Aid in the prevention of skin breakdown

Description	Size (cm)	Box Qty	Article No.
Askina® Transorbent®	5 x 7	10	0072786R
Askina® Transorbent®	10 x 10	5	0072789U
Askina® Transorbent®	15 x 15	5	0072790V
Askina® Transorbent®	20 x 20	5	0072791W

ASKINA® CARBOSORB

CHARCOAL DRESSING



Askina® Carbosorb is a conformable, sterile wound dressing with a thick, absorbent layer of non woven viscose-rayon. It has an activated charcoal cloth layer for bacteria and malodorous absorption.

With limited absorption capacity, it can be used alone on low exuding malodorous wounds, or in combination with other absorbing dressings for moderately to heavily exuding malodorous wounds.

Indications:

Askina® Carbosorb may be used for the management of low to heavily exuding, partial to full thickness chronic wounds, in particular when infection and/or offensive odour is present.

- Slow healing wounds
- Fungating wounds
- Infected and/or malodorous surgical or traumatological wounds

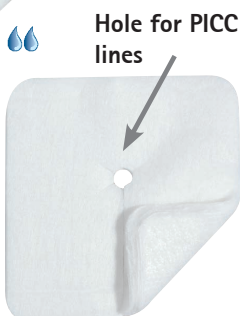
Description	Size (cm)	Box Qty	Article No.
Askina® Carbosorb	10 x 10	10	9025006
Askina® Carbosorb	10 x 20	10	9025014

ASKINA® PAD & S

ABSORBING NON-WOVEN COMPRESSES



Askina® Pad



Askina® Pad S

Askina Pad

Askina® Pad is a sterile, non adherent, highly absorptive compress to cover all types of exuding wounds.

Indications:

- Absorptive dressing for traumatologic, dermatologic or surgical wounds
- Secondary dressing for wide range of other dressings, including infected wounds



Askina Pad S

Askina® Pad S is a sterile, non adherent, highly absorptive slit compress for the dressing of draining and feeding tubes. It has a central hole suitable for use with the tube, with diameters up to 11 mm and a slit to wrap around tubing.

Indications:

- Absorptive dressing for drainage sites around catheters, feeding tubes, suprapubic catheters, etc.

Description	Size (cm)	Box Qty	Article No.
Askina® Pad	5 x 5	25	9024000
Askina® Pad	10 x 10	100	9024034
Askina® Pad	10 x 20	100	9024042
Askina® Pad S	5 x 5	30	9024050
Askina® Pad S	7.5 x 7.5	30	9024069

ASKINA® SOFT

POST OPERATIVE WOUND DRESSING



Askina® Soft is a sterile post-operative dressing combining a breathable fleece material and a non-adherent absorptive pad.

Indications:

- Management of post-operative wounds and all sorts of acute wounds such as cuts, lacerations, sutures, abrasions etc.

Advantages:

- Elastic wound dressing
- Breathable fleece material
- Skin friendly acrylic adhesive
- Non-adherent wound contact layer
- Easy to apply, even on difficult locations

Description	Size (cm)	Box Qty	Article No.
Askina® Soft	5 x 7.5	50	9086480
Askina® Soft	9 x 5	50	9086501
Askina® Soft	9 x 10	50	9086510
Askina® Soft	9 x 25	30	9086544
Askina® Soft	9 x 20	30	9086536
Askina® Soft	9 x 30	30	9086552

ASKINA® PLAST E



Askina® Plast E is the premium elastic adhesive bandage. Made in Germany from 100% cotton, the zinc oxide rubber adhesive is air and vapour permeable.

- 2.4m unstretched length
- Strong green plastic inner core
- Available in 5.0cm, 7.5cm and 10cm widths
- Latex Free
- Individually wrapped

Description	Width	Unstrtded Length	Box Qty	Article No.
Askina® Plast E	5 cm	2.4 m	12	9058005
Askina® Plast E	7.5 cm	2.4 m	12	9058006
Askina® Plast E	10 cm	2.4 m	12	9058007

ASKINA® SOFT CLEAR

POST OPERATIVE WOUND DRESSING



Askina® Soft Clear is a sterile post-operative dressing combining a semi-permeable transparent film and a non-adherent absorptive pad.

Indications:

- Management of post-operative wounds and all sorts of acute wounds requiring a waterproof barrier with visual control.

Advantages:

- Easy to apply even on difficult areas
- Skin friendly acrylic adhesive
- Allows patients to be washed with the dressing in place
- Bacteria proof barrier
- Visual Control

Description	Size (cm)	Box Qty	Article No.
Askina® Soft Clear	5 x 7.5	50	9086803
Askina® Soft Clear	9 x 5	50	9086812
Askina® Soft Clear	9 x 10	50	9086821
Askina® Soft Clear	9 x 20	30	9086839
Askina® Soft Clear	9 x 25	30	9086848
Askina® Soft Clear	9 x 30	30	9086857

ASKINA® VET

PREMIUM ELASTIC ADHESIVE BANDAGE



Askina® Vet is an elastic adhesive bandage made in Europe from an innovative polyurethane / cotton combination that provides higher elasticity.

- 2.4m unstretched length
- Strong green plastic inner core
- Available in 7.5cm width
- Latex Free
- Individually wrapped

Description	Width	Unstrtd Length	Box Qty	Article No.
Askina® Vet	7.5 cm	2.4 m	12	9051075

ASKINA® FIX E

PREMIUM ELASTIC ADHESIVE BANDAGE



Askina® Fix E is the premium cohesive elastic gauze bandage made in Germany from high grade cotton. Askina® Fix E allows for optimum heat and moisture exchange which encourages wound healing.

- 2.1m unstretched length
- Excellent cohesive properties
- Suitable for the fixation of wound dressings, IV catheters or within a Robert Jones bandage
- Available in 5cm and 10cm widths
- Latex Free
- Individually wrapped

Description	Width	Unstrtd Length	Box Qty	Article No.
Askina® Fix E	10 cm	2.1 m	12	9059148

ASKINA® FINGER BOB
ELASTIC DRESSING BANDAGE



Askina® Finger Bob is an elastic dressing bandage made from high grade cotton. Ideal for small patients, when bandaging is too big.

- Safe fixation of primary dressing on small legs and tails
- Easy and quick to apply
- Available in 2 sizes standard and large

Description	Description	Size	Box Qty	Article No.
Askina® Finger Bob	White, loosley packed	Standard	50	9044019
Askina® Finger Bob	Coloured, 6 in a pack 12 box's in a carton	Standard	6 x 12	9044035A
Askina® Finger Bob	White, loosley packed	Large	25	9044159

Complete Suture Range

Over a Century of Excellence

With more than 100 years of experience, B. Braun is a world leader in the manufacture and supply of sterile sutures.

Wounds were once closed with leather, hair, animal sinew, linen thread or twisted serous membrane obtained from animal intestines. In fact, the first sterile surgical sutures were created relatively recently.

Catgut, the first ever suture made specifically for surgical wound closure, was developed in the late nineteenth century. Made from sheep intestines, it was the world's first sterile and completely absorbable suture. By 1906, more than a hundred methods for sterilising catgut existed, none were totally reliable, not only for the sutures themselves but even less so for the packaging for distribution. The breakthrough came in 1908 when a technique was established to guarantee the supply of consistently sterile sutures to hospitals and other medical facilities.

From natural to synthetic, absorbable to non-absorbable, monofilament to multifilament, needled sutures to cassettes, B. Braun VetCare has a solution for your needs with high quality, affordable products that will perform consistently – of this we are confident.



PHARMACOPOEIA

The pharmacopoeia defines the minimum requirements of suture materials, by:

<ul style="list-style-type: none">■ Thread diameter■ Knot tensile strength■ Linear tensile strength	<p>The European Pharmacopoeia (EP) uses the metric system (referred to as »metric«) for classifying the suture size. We refer to United States Pharmacopoeia (USP) in Australia.</p> <p>All figures are in 1/10 mm. The figures represent the lower limits. The effective diameter of a suture mostly exceeds this value, usually in the upper reaches of the tolerance range of each suture.</p>
---	---

SIZE DESIGNATION FOR SURGICAL SUTURE MATERIALS

United States Pharmacopoeia (USP)	European Pharmacopoeia (EP)	Suture Diameter	United States Pharmacopoeia (USP)
Suture materials absorbable and non-absorbable	Suture materials absorbable and non-absorbable	mm-range	Catgut
USP size	metric size	mm	USP size
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	7-0
5-0	1	0,100-0,149	6-0
4-0	1,5	0,150-0,199	5-0
3-0	2	0,200-0,249	4-0
2-0	2,5	0,250-0,299	3-0
2-0	3	0,300-0,349	3-0
0	3,5	0,350-0,399	2-0
1	4	0,400-0,499	0
2	5	0,500-0,599	1
3+4	6	0,600-0,699	2
5	7	0,700-0,799	3
6	8	0,800-0,899	4
7	9	0,900-0,999	5
8	10	1,000-1,099	6

KNOT TYPES AND TECHNIQUE

GUIDELINES FOR CORRECT "KNOTTING"

CORRECT TECHNIQUE



The square knot or weaver's knot is a reliable knot and locks closely. This knot is suitable for ligatures and can also be applied as a slip knot.



The surgical knot or surgeon's knot is used often and is recommended when a suture is applied under tension. Not suitable for ligatures.



A slip knot should be applied when the first loop of the knot slips open and needs retightening with the subsequent loop. This applies especially when tying knots in deeper layers. For this technique, monofilament sutures should be used.

INCORRECT TECHNIQUE



The granny knot tends to loosen, is unreliable and is therefore not recommended.

HINTS AND TIPS

- Do not position the knot directly above the edge of the wound, but adjacent to it if possible.
- Avoid friction damage to the suture when tying the knot.
- The simplest knot (for any given material) is always the best.
- The finished knot must be tight enough that any later shift of the knot is prevented.
- Avoid tissue strangulation (risk of tissue necrosis).
- The first knot is the crucial one. Any subsequent knots are only to secure the first knot.
- Apply as many securing knots as necessary, but as few as possible (minimum 3 securing knots).
- Always tie the knot as small as possible and keep the suture ends as short as possible.

Correct Knot Technique



1 = 1

opposite application
(square knot =
weaver's knot)



1 = 1 = 1

opposite application
(square knot + 1)



2 = 1

opposite application
(surgical knot =
surgeon's knot)

Incorrect Knot Technique



1 x 1

non-opposite application
(so-called granny knot)

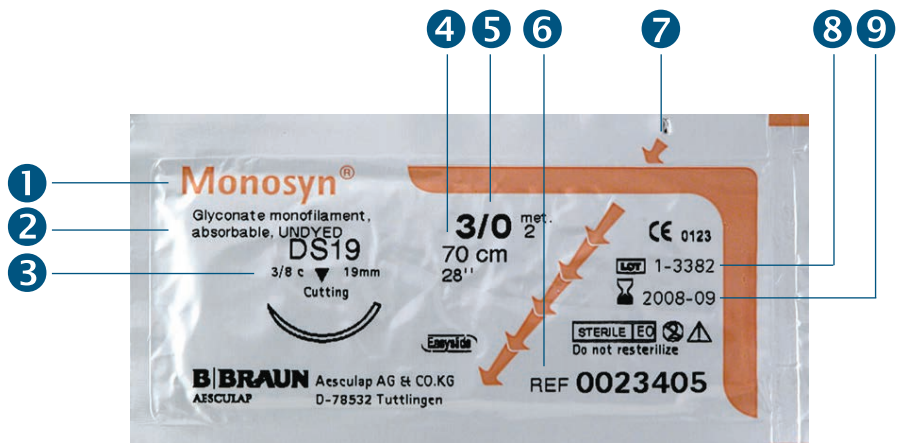


1 x 1 x 1



2 x 1

PACKAGE LABELLING



Label Number	Description
1	Product name
2	Suture description
3	Needle code and illustration
4	Suture length
5	Suture size (diameter)

Label Number	Description
6	Article number/ordering number
7	Marked tearing point
8	Batch number
9	Expiry date: year and month
10	Contents/foils per pack

SUTURE PACKAGING

USER FRIENDLY DIRECT-DISPENSE PACKAGING



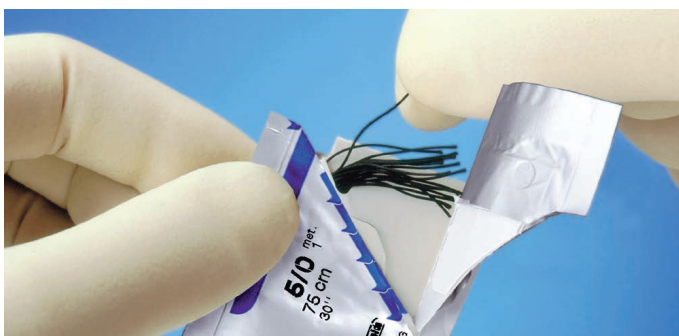
Direct-dispense packaging

- Clearly labelled product information
- Easy product identification
- Double sterile packaging with transparent outer peel-pack
- Tear-down opening system indicated by coloured arrows



Needle-thread combinations

- Direct and precise gripping of the needle with the needleholder



Sutures without needle (precuts)

- Easy, kink and knot-free dispensation of individual sutures, "thread by thread"

CASSETTE PACKS

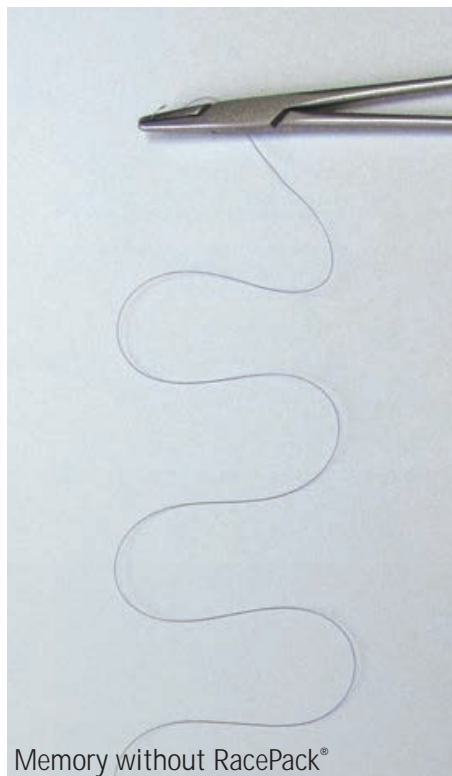


Cassette Packs

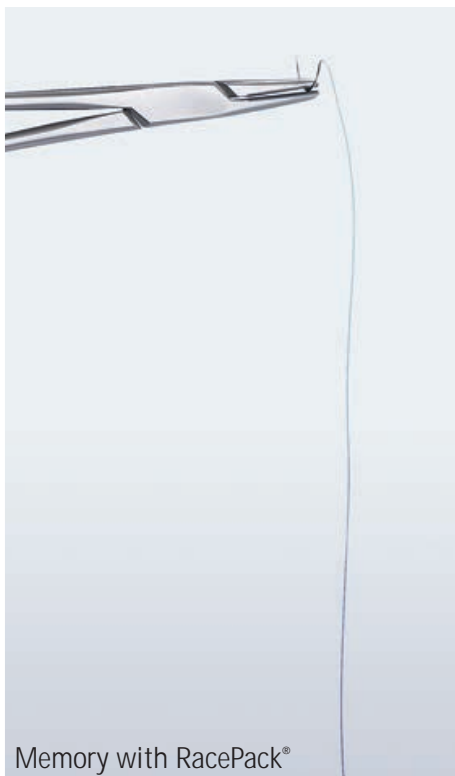
- Comfortable and easy handling of suture materials of any required length
- Economical alternative

RACEPACK®

REDUCING THE MEMORY EFFECT



Memory without RacePack®



Memory with RacePack®

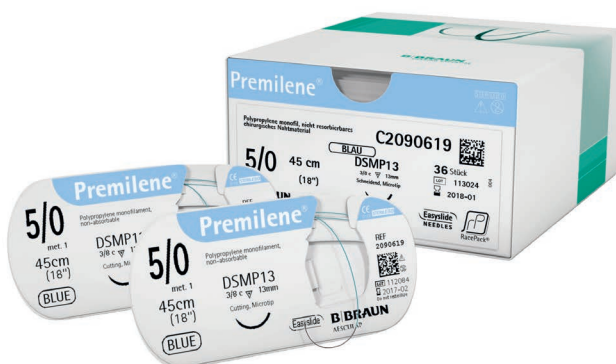


A unique and innovative suture packaging system

B. Braun has a long history of suture expertise and the use of state of the art technology. Using this expertise and our commitment to constant improvement in sutures, packaging and needles, RacePack® has been developed together with Operating Room staff to provide a functional packaging system which meets the requirements of the surgical team. The innovative technology of the thread layer within each RacePack® helps to minimise the memory effect associated with

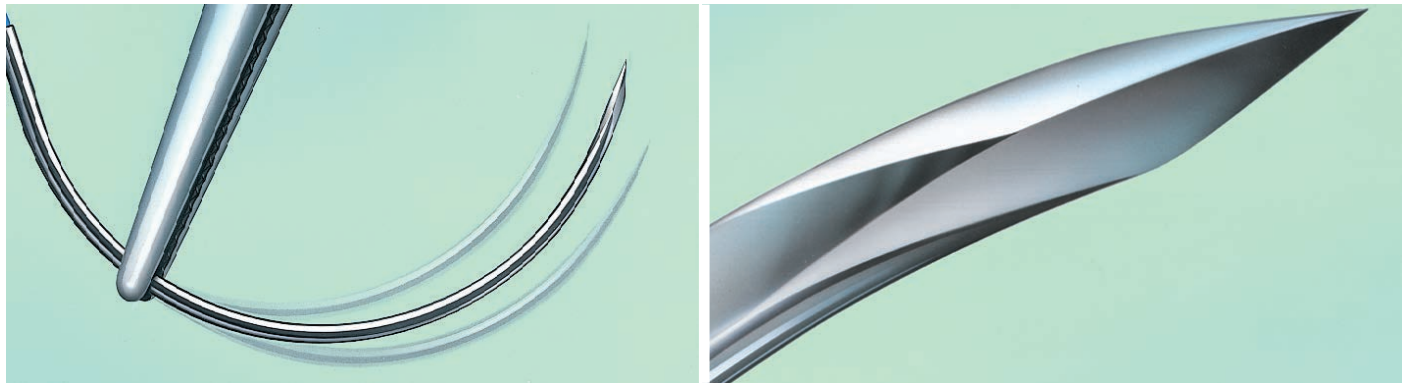
polypropylene sutures. RacePack® is now standard with the majority of Premilene codes and is indicated by the inclusion of a "2" in the item code eg C2090629, formerly CQ090629.

New RacePack® helps to reduce the memory effect compared to similar packaging on the market.



NEEDLES FOR VETERINARY SURGERY

EASYSLIDE – THE SPECIAL ATRAUMATIC NEEDLE



High quality stainless steel - series 300

- Result of extensive research and clinical experience

Laser-drilled ends

- Optimal atraumatic needle-thread transition

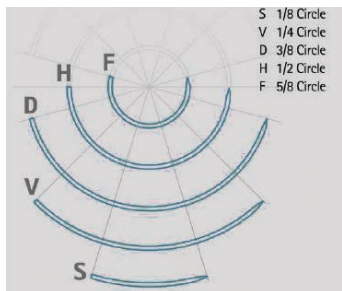
High bending/breaking resistance

- Highly smooth surface finish
- Flattened needle body to prevent needle rotation in the needleholder

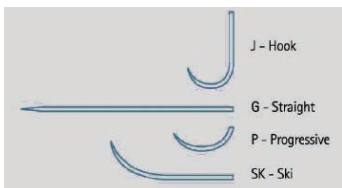
B. BRAUN NEEDLE NOMENCLATURE

TO IDENTIFY THE DIFFERENT TYPES OF NEEDLES, B. BRAUN USES THE FOLLOWING NOMENCLATURE:

Needle Angle of Curvature



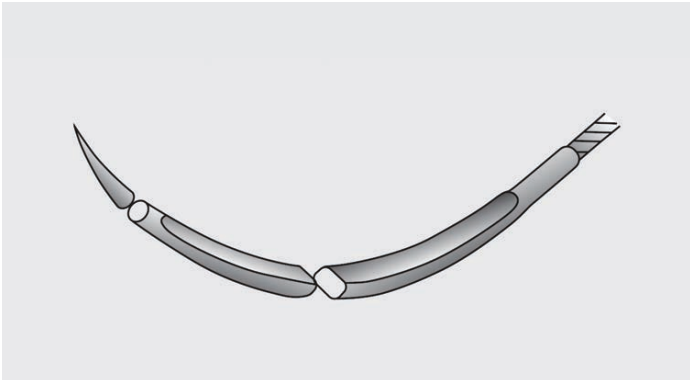
Others



A	B	C	D	E
Needle Angle of Curvature	Body Type	Point Type	Needle Length	Wire Size
S 1/8 circle	R round body	T trocar point	This refers to the distance between the needle point and the needle end, measured alongside the needle.	f thin bodied needle
V 1/4 circle	S cutting body	N blunt point		
D 3/8 circle	L lancet body	S sternum point		s heavy bodied needle
H 1/2 circle		C short cutting type		
F 5/8 circle		M micro point		ss extra heavy bodied
J hooked		MP precision point		
G straight		m micro needle		
P progressive curved				v break-off bodied needle
SK ski needle				
H	R	C	26	

NEEDLES FOR VETERINARY SURGERY

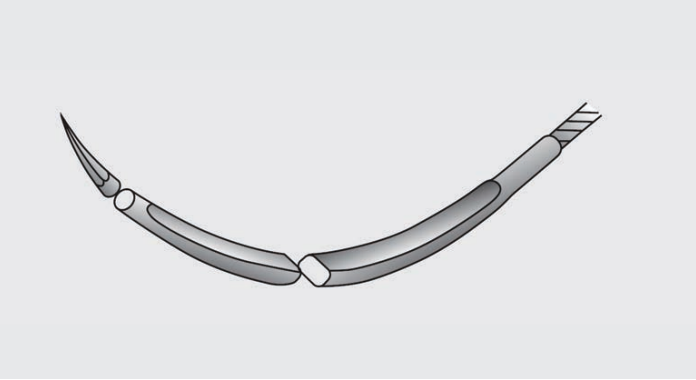
IMPORTANT NEEDLES AND NEEDLE CODE DESCRIPTIONS



HR = 1/2 circle; round body
DR = 3/8 circle; round body

Round bodied needle

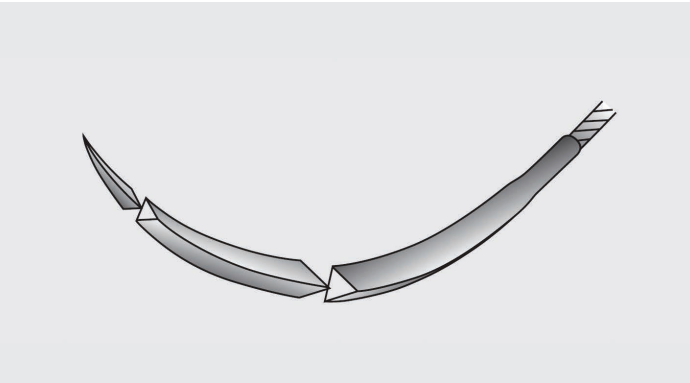
The round body of this needle is tapered to a fine needle tip, thus ensuring tissue-preserving penetration. The needle body is flattened to prevent the needle from rotating in the needleholder. This needle is designed for soft tissues.



HRT = 1/2 circle; round body, trocar
DRT = 3/8 circle; round body, trocar

Round bodied needle with trocar point

Needle with strong cutting point of four edges that blend into a round tapered body. This needle ensures good penetration in tough tissues with minimum tissue trauma and is flattened to prevent the needle from rotating in the needleholder. This needle is designed for soft tissues.

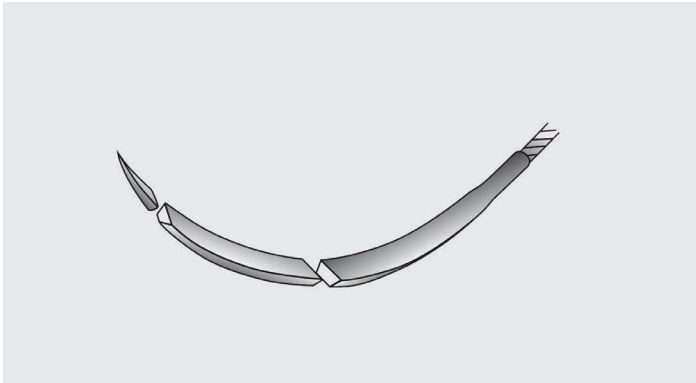


HS = 1/2 circle, cutting
DS = 3/8 circle, cutting
GS = straight, cutting

DSMP = 3/8 circle, cutting, precision point

Reverse cutting needle

Needle with a triangular cross section and an apex cutting edge on the outside of the needle curvature. This point ensures easy initial penetration in tough tissues and does not cause an unwanted cutting action through the upward motion, which can occur with conventional cutting needles.



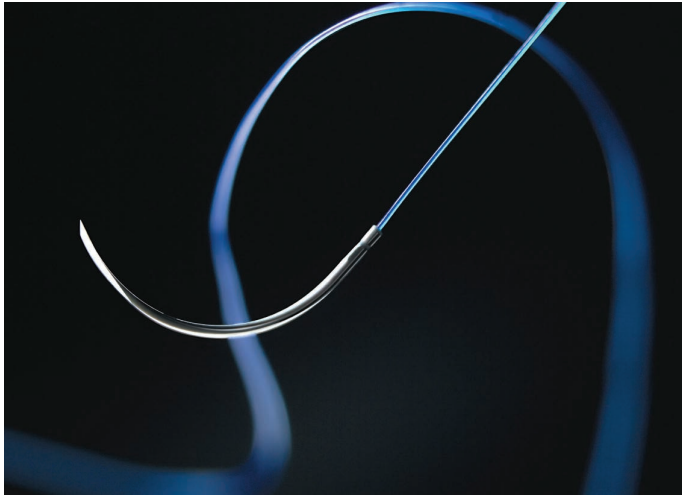
HLm = 1/2 circle, micro lancet
DLm = 3/8 circle, micro lancet
PLm = progressive/asymptotic, micro lancet

VLM = 1/4 circle, micro point

Lancet (spatula) needle

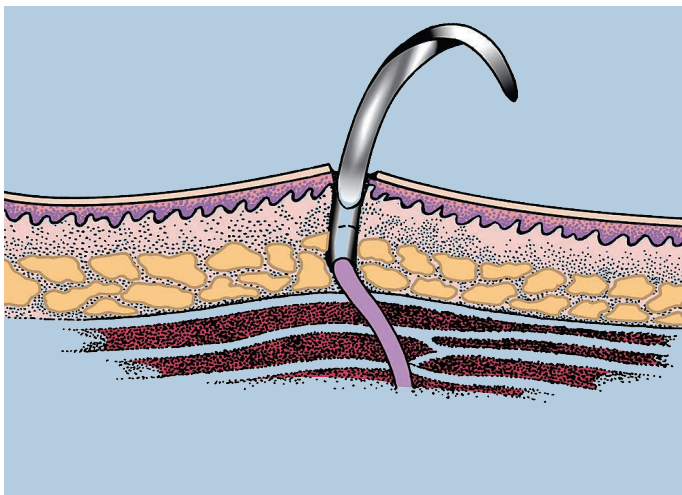
This needle is a further development of the spatula needle. The danger of an unintentional injury of deeper tissue-layers is significantly reduced by the special shaped lancet tip.

NEEDLE-THREAD COMBINATIONS



Based on decades of research and development, B. Braun offers a wide range of suture materials that are perfectly suited to the requirements of today's Veterinary surgery. B. Braun VetCare recommends the use of atraumatic needle-thread combinations (swathed needles). B. Braun atraumatic needle-thread combinations excel by their lasting quality and a precise finish. Thanks to the smooth transition between needle and suture, the suture canal is minimised to the size defined by the needle, while micro tissue ruptures are avoided.

PREFERRED

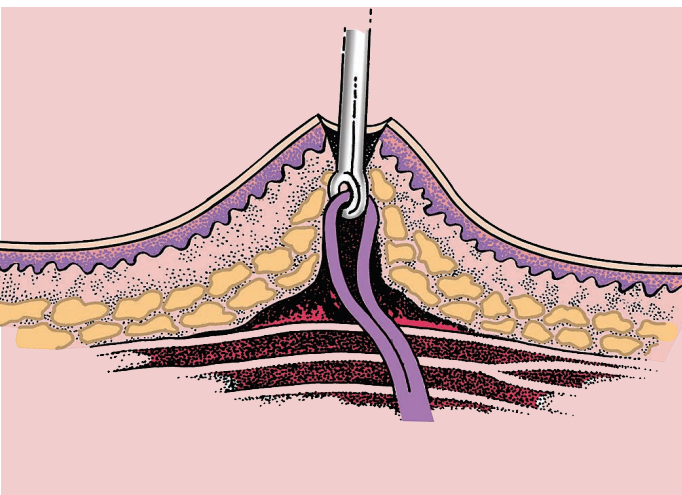


Atraumatic Needle-thread Combinations



- Minimal wound trauma
- No time-consuming threading
- Needle always new, sterile and sharp
- Solid union of needle and thread
- Smooth transition between needle and thread
- Needle and suture sizes adjusted to individual indications

NOT-PREFERRED



Traumatic Needles



- Wound trauma due to double thread suture
- Time-consuming threading of the suture into the eye of the needle
- Reused, potentially blunt needles
- No firm seating of the suture in the spring eye
- Suture damaged when being clamped in the spring eye

SPECIALIST INFORMATION

TISSUE-SPECIFIC APPLICATION RECOMMENDATIONS

Absorbable					
	Monosyn® Quick	Monosyn®	Safil Quick®	Safil®	MonoPlus®
	Monofilament Glyconate	Monofilament Glyconate	Braided Polyglycolic acid Coated	Braided Polyglycolic acid 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 18 days	Long-term 35 days
Skin	+	++	+	+	++
Subcutis	+	++	+	++	0
Mucosa	++	++	++	+	0
Small intestine	0	++	0	+	++
Colon	–	++	–	+	++
Bladder (infected)	+	++	0	0/-	++
Ureter/Urethra	–	++	0	0	+
Uterus	++	++	0	+	0
Parenchymal organs	–	++	–	0	++
Ovary ligature	–	++	–	0	++
General ligature	–	++	–	0	++
Muscles	–	++	–	++	++
Abdominal wall / linea alba	–	+	–	+	++
Hernias	–	–	–	–	+
Fascias	–	–	–	0	++
Tendons	–	–	–	–	++
Ligaments	–	–	–	+	++
Joint capsule	–	–	–	+	++
Orthopaedic surgery	–	–	–	–	++
Blood vessels	–	0	–	0	++
Nerves	–	–	–	–	+
Dental	++	++	++	+	+
Edge of eye lid	+	++	+	++	0
Eye	0	0	0	++	0
Material of choice	++ very good	+ good	0 suitable	– unsuitable	

SPECIALIST INFORMATION

TISSUE-SPECIFIC APPLICATION RECOMMENDATIONS

Non-absorbable			
	Premilene®	Dafilon®	Supramid®
	Monofilament polypropylene	Monofilament polyamide 6/6.6	Pseudo-monofilament Polyamide 6/6.6
Skin	++	++	++
Subcutis	–	–	–
Mucosa	+	++	++
Small intestine	+	+	+
Colon	+	+	+
Bladder (infected)	+	+	+
Ureter/Urethra	++	+	+
Uterus	–	–	–
Parenchymal organs	+	+	0
Ovary ligature	++	++	++
General ligature	++	++	++
Muscles	+	+	+
Abdominal wall / linea alba	+	+	+
Hernias	++	+	++
Fascias	++	+	+
Tendons	++	+	–
Ligaments	++	+	+
Joint capsule	++	+	+
Orthopaedic surgery	++	+	+
Blood vessels	++	+	–
Nerves	++	+	–
Dental	++	+	+
Edge of eye lid	++	++	0
Eye	++	++	–

Material of choice

++ very good

+ good

0 suitable

NEEDED SUTURES

ABSORBABLE SUTURES

SUTURES MATERIAL AT A GLANCE



Description	Novosyn® Quick	Safil® Violet	Novosyn®
Structure	Multifilament Braided Coated	Multifilament Braided Coated	Multifilament Braided Coated
Chemical composition	Polyglactin 370 + calcium stearate	Polyglycolic acid 100% Glyconate coated	Polyglycolic acid Poly(glycolide-co-L-lactid 35 / 65) + calcium stea- rate
Colour	undyed	Violet (undyed available where indicated)	Violet (undyed available where indicated)
Knot tensile strength retention	5 days p.i. 50% 14 days p.i. 0%	14 days p.i. 70% 18 days p.i. 50% 30 days p.i. 0%	21 days p.i. 40-50%
Mass absorption	42 days	60 - 90 days	56-70 days
USP Range	6/0 - 2	3 - 6 & 9/0 - 10/0 Other sizes refer to Novosyn	2 - 8/0
Indications	<ul style="list-style-type: none"> ■ Skin ■ Subcutis ■ Odontology ■ Gynaecology ■ Dental ■ Ophthalmology 	<ul style="list-style-type: none"> ■ Skin ■ Subcutis ■ Abdominal wall closure ■ Muscle ■ Gynaecology ■ Gastro-intestinal ■ Ophthalmology 	<ul style="list-style-type: none"> ■ Gastrointestinal ■ Gynaecology ■ Obstetrics ■ Orthopaedics ■ Urology ■ Ophthalmology ■ Ligatures
Contra-indications	Indications that require permanent support by implantation of long-term or non-absorbable suture material	Indications that require permanent support by implantation of long-term or non-absorbable suture material	Indications that require permanent support by implantation of long-term or non-absorbable suture material
Recommended knot technique	2 = 1 = 1 = 1	2 = 1 = 1 = 1	2 = 1 = 1 = 1

C Box of 36 units

B Box of 24 units

G Box of 12 units

ABSORBABLE SUTURES

SUTURES MATERIAL AT A GLANCE



Description	Monosyn Quick®	Monosyn®	MonoPlus	Monomax
Structure	Monofilament Braided	Monofilament Uncoated	Monofilament Uncoated	Monofilament Uncoated
Chemical composition	Glyconate (72% glycolide, 14% trimethylene carbonate, 14% E-caprolactone)	Glyconate (Glycolid, trimethylene carbonate & caprolacton)	Poly-p-dioxanone	Poly-4 hydroxybutyrate
Colour	undyed	Violet (undyed available where indicated)	Violet	Violet
Knot tensile strength retention	6-7 days p.i. 50%	7 days p.i. 70% 14 days p.i. 50% 21 days p.i. 20%	21 days p.i. 80% 35 days p.i. 50% 70 days p.i. 0%	90 days p.i. 50% 180 days p.i. 0%
Mass absorption	56 days	60-90 days	180 - 210 days	13 months
USP Range	6/0 - 1	7/0 - 2	7/0 - 2	2/0 - 1
Indications	<ul style="list-style-type: none"> Plastic Surgery Gynaecology & Obstetrics Urology & Paediatrics Odontology & ENT Maxillofacial 	<ul style="list-style-type: none"> Skin Mucous membranes Subcutis Gastro-intestinal Urology Ligatures Castration Muscle Plastic 	<ul style="list-style-type: none"> Abdominal wall closure Fascias Orthopaedics Gastro-intestinal Hernias Vascular surgery 	<ul style="list-style-type: none"> Closure of the abdominal wall
Contra-indications	Indications that require permanent support by implantation of long-term or non-absorbable suture material	Indications that require permanent support by implantation of non-absorbable suture material	Indications that require permanent support by implantation of non-absorbable suture material	Indications that require permanent support by implantation of non-absorbable suture material
Recommended knot technique	2 = 1 = 1 = 1	2 = 1 = 1 = 1	2 = 1 = 1 = 1	2 = 1 = 1 = 1

C Box of 36 units

B Box of 24 units

G Box of 12 units

SAFIL® VIOLET

GENTLE, STRONG, SAFE AND VERSATILE








A mid term braided and coated synthetic absorbable suture that provides predictable and reliable absorption. Safil® offers high knot security and tensile strength.

- High tensile strength
- Excellent knot run down
- Smooth passage through tissue
- Easy handling
- Versatile in application

C Box of 36 units

B Box of 24 units

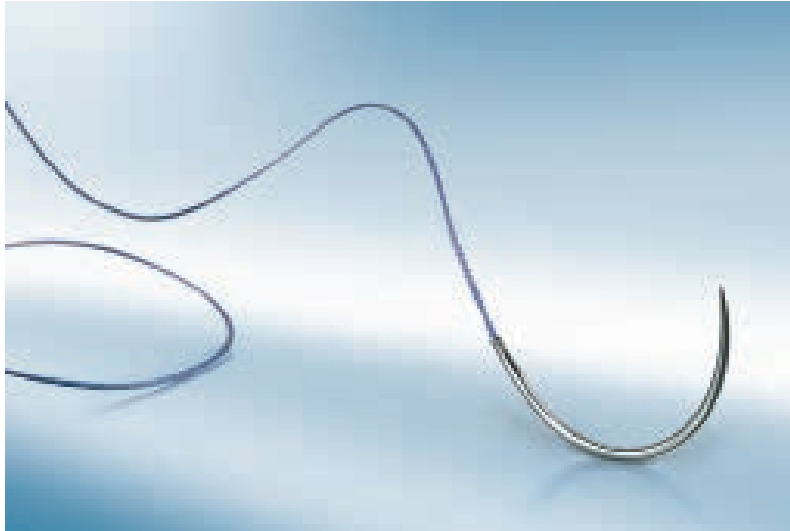
G Box of 12 units

Needles in mm		USP metric							
	Length cm	10/0 0,2	9/0 0,3					3 6	5 7
1/2 circle reverse cutting needle									
	140								G1048142
3/8 circle micro lancet needle									
	8 15	G1048610 G1048703	G1048611						
3/8 circle micro lancet needle									
	30		G1048705						
	30		G1048714						
1/2 circle round bodied needle									
	140							G1048200	

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.







NOVOSYN®

ABSORBABLE SUTURES



Novosyn® is a mid-term absorbable braided and coated synthetic suture made of poly (glycolide-co-L-lactid 90/10). Novosyn® degrades by hydrolysis and provides a predictable and reliable absorption.

- Smooth knot run down
- Gentle knot repositioning
- High knot holding capacity
- Minimised inflammatory reaction











Needles in mm	Thread	USP metric							
	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
3/8 circle reverse cutting needle									
<div>DS 12</div> 	45	G0068206 C0068206	G0068207 C0068207	G0068208 C0068208					
<div>DS 16</div> 	45		G0068212 C0068212	G0068213 C0068213	G0068214 C0068214				
<div>DS 19</div> 	45		G0068219 C0068219	G0068220 C0068220	G0068221 C0068221				
	70			G0068420 C0068419	G0068421 C0068421	C0068422			
<div>DS 24</div> 	45			C0068536					
	70			G0068234 C0068232	G0068235 C0068235	G0068236 C0068236	G0068237 C0068237		
<div>DS 30</div> 	70				G0068246	G0068247 C0068248	G0068248 C0068249	G0068249 C0068245	
<div>DS 39</div> 	70 90						C0068282 C0068239	C0068283 C0068240	

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.

C Box of 36 units

B Box of 24 units









G Box of 12 units

Needles in mm	Thread	USP metric							
	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									
	150 loop							B0068927	B0068928
1/2 circle round bodied needle with trocar point									
	70					C0068392	C0068393	C0068391	
	70				C0068394	C0068395	C0068396	C0068397	
	70					C0068349	C0068351		
	90							C0068472	
	90							G0068788	
3/8 circle round bodied needle with trocar point									
	70	C0068306	C0068307						
	70		C0068319	C0068320	C0068321				
	70			C0068376	C0068377	C0068378			
	70				C0068382	C0068383			
	70				C0068385	C0068386	C0068387	C0068309	C0068389

C Box of 36 units





B Box of 24 units

G Box of 12 units

Needles in mm	Thread	USP metric							
	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									
HR 10 	70	C0068002	C0068003						
HR 13 	70	C0068006	C0068007	C0068008	C0068009				
HR 17 	70	C0068011	C0068012	C0068013	C0068014	C0068015			
HR 22 	70		C0068028	C0068029	C0068030	C0068031	C0068032		
HR 26s 	70		C0068039	C0068040	C0068041	C0068042	C0068043	C0068044	C0068034
	90			C0068540	C0068541	C0068542	C0068543	C0068544	C0068545
HR 30 	70			C0068035	C0068046	C0068047	C0068048	C0068049	C0068045
	90			C0068445	C0068446	C0068447	C0068448	C0068645	
HR 30s 	70					C0068547	C0068548	C0068549	
HR 37 	70				G0068050 C0068050	G0068051 C0068051	G0068052 C0068052	G0068053 C0068053	C0068054
	90				C0068550	C0068552	C0068552	C0068553	

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.

C Box of 36 units	B Box of 24 units	G Box of 12 units
--------------------------	--------------------------	--------------------------

Needles in mm	Thread	USP metric							
	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				C0068094	G0068095 C0068095	C0068096	G0068097 C0068097	C0068098
	90			C0068953	C0068955	C0068595	C0068956	C0068597	
	70					C0068381	C0068175	C0068457	
	90						C0068569	C0068571	
	70						C0068946	C0068947	C0068948
	90							C0068847	
	70				C0068099	C0068060	C0068061	C0068062	C0068063
	90					C0068560	C0068561	C0068562	

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.





MONOSYN® QUICK

NEEDLE-THREAD COMBINATION



Monosyn® Quick is an undyed short-term absorbable synthetic monofilament suture made of glyconate for the approximation of soft tissue with a fast healing process.

Monosyn® Quick offers excellent handling properties and high knot security. Monosyn® Quick is recommended for all soft tissue with a fast healing process approximations.

Needles in mm	Thread	USP metric							
	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
3/8 circle reverse cutting needle									
<div>DS 12</div> 	45	C0025134	C0025135	C0025136	C0025169				
	70		C0025323	C0025304					
<div>DS 16</div> 	45		C0025125	C0025126					
	70		C0025331	C0025332	C0025333				
<div>DS 19</div> 	45		C0025001	C0025002	C0025003				
	70		C0025006	C0025007	C0025008				
<div>DS 24</div> 	45			C0025011	C0025351	C0025352	C0025342		
	70				C0025012	C0025013			






Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.



C Box of 36 units

B Box of 24 units











G Box of 12 units

Needles in mm	Thread	USP metric							
		6/0 0.7	5/0 1	4/0 1.5	3/0 2	2/0 3	0 3.5	1 4	2 5
 DS 30	70				C0025014	C0025015			
1/2 circle round bodied needle with trocar point									
 HRT 17	70		C0025152						
 HRT 37	90					C0025091			
 HRT 37s	70					C0025103			
 HRT 43	90						C0025284	C0025285	

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.

MONOSYN® QUICK

NEEDLE-THREAD COMBINATION

Needles in mm	Thread	USP metric							
	length cm colour	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 with trocar point									
DRT 12 	45 undyed	C0025235							
DRT 18 	45 70		C0025236	C0025313	C0025314				
1/2 circle round bodied needle									
HR 13 	45 70 undyed	C0025193 C0025206	C0025194 C0025207	C0025195					
HR 17 	45 70 undyed	C0025216	C0025225 C0025051	C0025052	C0025053				
HR 22 	45 70 undyed			C0025245	C0025160 C0025246	C0025247			
HR 26 	70 undyed			C0025057	C0025058	C0025059	C0025060		
HR 26s 	70 undyed					C0025361	C0025165		
HR 30 	70 undyed					C0025294	C0025295	C0025296	
HR 37s 	70 90 undyed				C0025064 C0025070	C0025065 C0025071	C0025066 C0025072	C0025067 C0025073	
HR 40s 	70 90 undyed				C0025080	C0025076	C0025077 C0025082	C0025078 C0025083	

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.

MONOSYN®

THE NEW STANDARD IN SOFT-TISSUE SURGERY








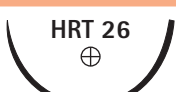




A mid term synthetic absorbable monofilament suture that offers excellent handling properties and high knot security. Monosyn® is recommended for all soft-tissue approximations.

- Excellent knot-pull tensile strength
- Smooth tissue passage
- Broad spectrum of indications
- pH-independent degradation
- Ideal for ligatures

Needles in mm		USP metric							
	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
Pre-cuts (no needle)									
1 x 140	140				G0020035	G0020036	G0020037	G0020038	
					C0020035	C0020036	C0020037	C0020038	
1 x 250	250				G0020045	G0020046	G0020047	G0020048	
1/2 circle round bodied needle									
HR 13	70	C0022007							
HR 17	70	C0022002	C0022003	G0022004 C0022004	G0022005 C0022005				
HR 22	70			G0022014 C0022014	G0022015 C0022015	C0022016			
HR 26	70			G0022024 C0022024	G0022025 C0022025	G0022026 C0022026	G0022027 C0022027	C0022028	
HR 26s	70			C0022084	C0022085	C0022086	C0022087		
HR 26s	90				C0022485	C0022486	C0022487		
HR 30	70				G0022035 C0022035*	G0022036 C0022036	G0022037 C0022037	C0022038	

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.














THE NEW STANDARD IN SOFT-TISSUE SURGERY

Needles in mm		USP metric							
	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
	70				C0022045	G0022046 C0022046	G0022047 C0022047	G0022048 C0022048	
	90					C0022446	C0022447	C0022448	
	70					C0022066	C0022067	G0022068 C0022068	
	90					C0022466	C0022467	C0022468	
1/2 circle round bodied needle with trocar point									
	70	C0022322	C0022323	G0022324 C0022324	C0022325	C0022326			
1/2 circle round bodied needle with trocar point Continued									
	70			C0022304	C0022305	C0022306	C0022307		
	70					C0022336			
	70					C0022316			
1/2 circle reverse cutting needle									
	70				G0022236 C0022236	G0022237 C0022237			
	70				G0022241	G0022242 C0022242	G0022243 C0022243		

C Box of 36 units

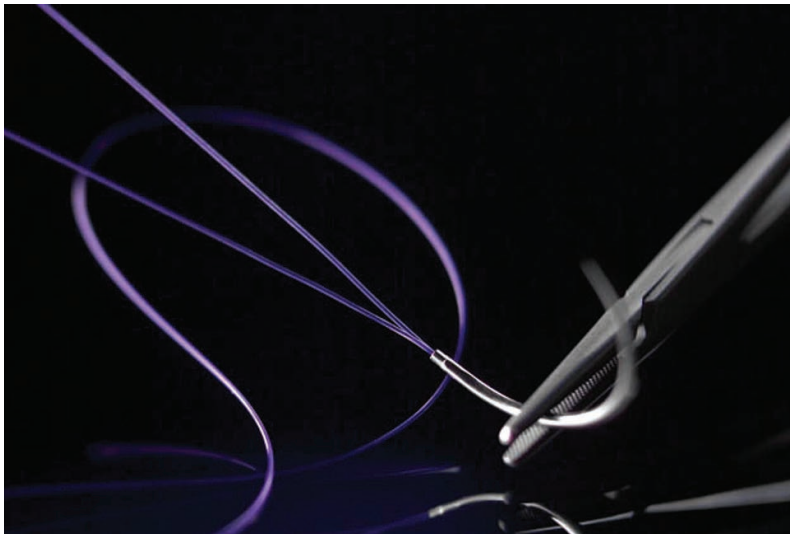
B Box of 24 units

G Box of 12 units

Needles in mm		USP metric							
	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 reverse cutting needle continued									
	70					G0022247 C0022247	G0022248 C0022248	G0022249 C0022249	
	90						C0023247	C0023248	
	45			G0022504 C0023204+	C0023205+				
	70			G0022204 C0022204	G0022205 C0022205				
	70		C0023403	C0023404	C0023405				
	70				G0022215 C0022215	G0022216 C0022216 C0023216+	G0022217 C0022217		
3/8 circle reverse cutting needle continued									
	70					G0022231 C0022231	G0022232 C0022232	G0022233 C0022233	
3/8 circle reverse cutting micro point									
	45	C0023642	C0023643						
	45	C0023602	C0023603	C0023604					
3/8 circle round bodied trocar point									
	70		C0022343	C0022344					
	70			C0022354	C0022355				
	70				C0022365	C0022366			
	70					C0022376	C0022377		









Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle. |+ Indicates Undyed Thread

WHEN HEALING TAKES TIME



A long term synthetic absorbable monofilament suture that offers good handling combined with great strength. MonoPlus® is ideal for all indications where extended wound support is required.

- Long-term tensile strength for safe wound adaption
- Atraumatic passage through tissue
- Excellent handling due to high flexibility
- No capillarity
- High knot safety

MonoPlus®		USP metric							
Needles	Length cm	6/0 0,7	5/0 1	4/0 1,5	3/0 2	2/0 3	0 3,5	1	2 5
1/2 circle round bodied needle									
	70	G0024002							
		C0024002	C0024003	C0024004					
	70		G0024013						
		C0024012	C0024013	C0024014	C0024015				
	70			G0024134	G0024135				
			C0024133	C0024134	C0024135	C0024136			
	70				G0024025	G0024026			
				C0024024	C0024025	C0024026	C0024027		
	70								
					C0024085	C0024086	C0024087	C0024088	
	70				G0024035		G0024037		
				C0024034	C0024035	C0024036	C0024037		
	70						G0024057		
					C0024055	C0024056	C0024057	C0024058	
	90								
					C0024450		C0024452	C0024453	







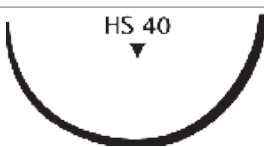
Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.

MONOPLUS®





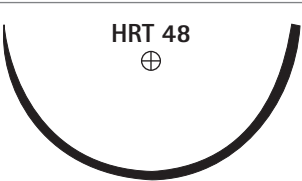









WHEN HEALING TAKES TIME



C Box of 36 units	B Box of 24 units	G Box of 12 units
-------------------	-------------------	-------------------

MonoPlus®		USP metric							
Needles	Length cm	6/0 0,7	5/0 1	4/0 1,5	3/0 2	2/0 3	0 3,5	1	2 5
1/2 circle round bodied needle continued									
	70							C0024067	C0024068
	90						C0024467	G0024468	
								C0024468	
	90							C0024078	
1/2 circle reverse cutting needle									
	70				G0024185	G0024186	G0024187		
					C0024185	C0024186	C0024187		
	70					C0024156	C0024157	G0024158	
								C0024158	
	90					G0024114	G0024115	G0024116	
						C0024114	C0024115	C0024116	
	90						C0024117	C0024118	G0024119
									B0024119

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.

MonoPlus®		USP metric							
Needles	Length cm	6/0 0,7	5/0 1	4/0 1,5	3/0 2	2/0 3	0 3,5	1	2 5
1/2 circle round bodied needle with trocar point									
 HRT 17	70		G0024283	G0024284	G0024285	G0024286			
			C0024283	C0024284	C0024285	C0024286			
 HRT 26	70				G0024305	G0024305			
					C0024305	C0024305	C0024307		
 HRT 37	90					C0024321	C0024322	C0024323	
 HRT 40	150 loop								G0024344
 HRT 48	90							C0024333	
3/8 circle reverse cutting needle									
 DS 12	45			C0024193					
 DS 19	70			G0024536	G0024519				
				C0024536	C0024519				
 DS 19	45		G0024081	C0024909					
			C0024081						
 DS 24	70				G0024520	G0024990			
					C0024520	C0024990			
 DS 39	90							C0024538	
3/8 circle reverse cut with micro point									
 DSMP 11	45	C0024176	C0024177						
 DSMP 13	45	C0024407							
 DSMP 16	45		G0024194	C0024970					
 DSMP 19	70				C0024151				

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.

NON-ABSORBABLE SUTURES

SUTURE MATERIAL AT A GLANCE

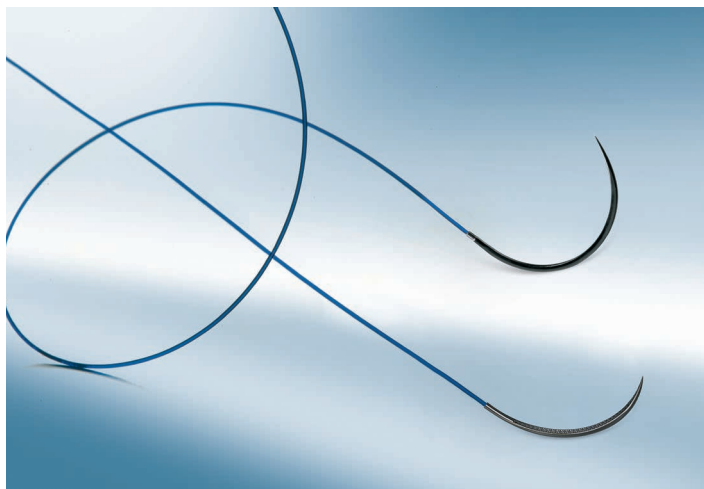


Description	Optilene®	Dafilon®	Premicron®
Structure	Monofilament Non-absorbable	Monofilament Pseudo-non-absorbable	Multifilament Non-absorbable
Chemical composition	Polypropylene + Polyethylene	Polyamide	Polyester
Colour	Brilliant Blue	Blue Black	Green White
Mass absorption	Permanent	2 - 4 years	Permanent
Indications	<ul style="list-style-type: none"> ■ Skin ■ Intracutaneous ■ Vascular surgery ■ Cardiac surgery ■ Hernias ■ Tendons/ligaments ■ Nerves ■ Ophthalmology ■ Neurosurgery 	<ul style="list-style-type: none"> ■ Skin ■ Ophthalmology ■ Microsurgery ■ Neurosurgery ■ Plastic and reconstructive surgery 	<ul style="list-style-type: none"> ■ Cardiac surgery ■ Thoracic surgery ■ Orthopaedic surgery ■ Ophthalmic surgery ■ Neurosurgery ■ Plastic and reconstructive surgery ■ General surgery
Contra-indications	Infected Tissue	Indications where sustained stability of the suture is essential (>2 years)	infected Tissue
Recommended knot technique	2 = 1 = 1 = 1	2 = 1 = 1 = 1	2 = 1 = 1 = 1

C Box of 36 units








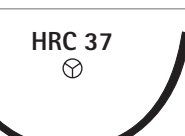
B Box of 24 units

G Box of 12 units



A non-absorbable monofilament and uncoated suture ideal for use in general soft tissue approximation and/or ligation including use in cardiovascular, ophthalmic and neurological procedures. Optiline has been engineered to provide high tensile strength and perfect elasticity

- RacePack® reduces the memory effect experienced with Polypropylene
- Excellent knot security
- Minimal acute inflammation reaction in tissues
- Unsurpassed strength
- Optimal elasticity and elongation properties

Needle in mm		USP metric							
	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 taper point									
 HR 17	75		C3090012	C3090013	C3090014				
 HR 22	75			C3090029					
 HR 26	75			C3090040	C3090041	C3090042	C3090043		
 HR 37	75					C3090051	C3090052	C3090053	
1/2 circle round bodied needle with a short cutting tip									
 HRC 17	75		C3090560	C3090561					
 HRC 22	75					C3095572			
 HRC 26	75				C3090473		C3095796		
 HRC 37	75						C3095048		

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.



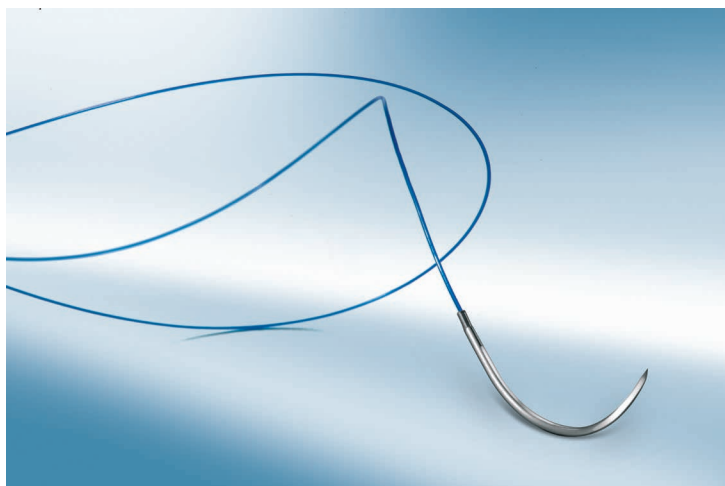
C Box of 36 units

B Box of 24 units

G Box of 12 units







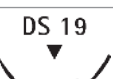


Needles in mm		USP metric							
	Length cm	6/0 0,7	5/0 1	4/0 1,5	3/0 2	2/0 3	0 3,5	1 4	2 5
3/8 circle reverse cutting needle									
DS 12 	45	C3090206	C3090207	C3090208					
DS 19 	45		C3090219	C3090220	C3090221				
	75		C3090519	C3090520	C3090521				
DS 24 	45			C3090434	C3090435	C3090436			
	75			C3090234	C3090235	C3090236			
DS 30 	75				C3090246	C3090247	C3090248		
DS 39 	75				C3090254	C3090255	C3090256		
3/8 circle round bodied short cutting tip									
2xDRC 12 	75	C3095175							
Straight cutting needle									
GS 60 	75				C3090264	C3090265	C3090266		

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.



A synthetic non-absorbable monofilament suture indicated for the closure of superficial wounds and ophthalmic surgery. As with any nylon suture, though not absorbable, progressive hydrolysis of the suture may result in gradual loss of tensile strength over time.

- Flexible, easy to handle and tie
- Good knot-pull tensile strength
- Smooth passage through tissue
- Good histocompatibility
- High knot safety





Needles in mm		USP metric							
	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									
	75					C0930423	C0930431		
	75					C0930477	C0930482		
1/2 circle reverse cutting needle									
	75							C0932620	
3/8 reverse cutting needle									
	45	G0932060	G0932078						
		C0932060	C0932078	C0932086					
	45	G0932116	G0932124	G0932132					
		C0932116	C0932124	C0932132					
	45		G0932191	G0932205	G0932213	C0932221			
			C0932191	C0932205	C0932213				
	75		G0935190	G0935204	C0935212				
			C0935190	C0935204					
	45			C0932345	G0932353	G0932361			
					C0932353	C0932361			
	75			G0935344	G0935352	C0935360	C0935379		
				C0935344	C0935352				



C Box of 36 units

B Box of 24 units

G Box of 12 units


Needles in mm		USP metric							
	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
3/8 reverse cutting needle Continued									
 DS 30	90					C0935522			
	75				C0935468	C0935476	C0935484	C0935492	
 DS 39	75				C0932540	C0932558	C0932566	C0932574	
 DS 60	100							B0935915	B0935914
 DS 90	100						C0934909	C0934925	C0934933

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle | Suffix "m" indicates micro needle.

DAFILON®

VERSATILE, RELIABLE AND INEXPENSIVE

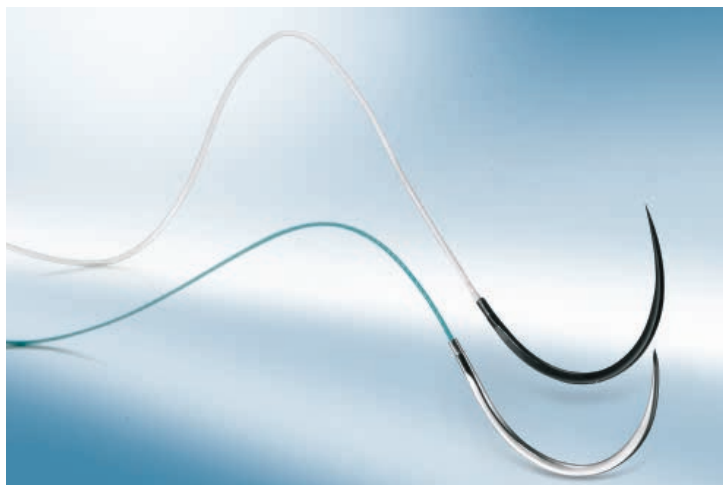
C Box of 36 units	B Box of 24 units	G Box of 12 units
-------------------	-------------------	-------------------

Needles in mm		USP metric							
	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
Straight cutting needle									
GS 60	75			C0932647	C0932655	C0932663			
	90				C0934658				
1/2 circle micro lancet needle									
2xHLm 6 	30	G1118609	G1118617						
HLm 6 	15	G1118625	G1118633						
3/8 circle micro lancet needle									
DLm 6 	15	G1118722	G1118730						
DLm 6s 	15	G1118781	G1118790						
2xDLm 6 	30	G1118706	G1118714						
2xDLm 6s 	30	G1118765	G1118773						

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.

PREMICRON®

NON-ABSORBABLE SUTURES



PremiCron® is a non-absorbable braided and coated synthetic multifilament composed of polyester fibres. PremiCron® sutures are coated uniformly with silicone to increase surface lubricity, thereby enhancing handling characteristics.

Available in single packs (4 or 8 sutures) either green or white.

- General surgery
- Cardiovascular surgery
- Vascular surgery

C Box of 36 units

B Box of 24 units

G Box of 12 units

Needle in mm		Thread	USP metric						
		length cm colour	5/0 1	4/0 1.5	3/0 2	2/0 3	0 3.5	1 4	
1/2 circle round bodied needle									
CV Pass	HR 10	45 Green	C0026009	C0026010					
CV Pass	HR 13	45 75 Green	C0026029	C0026030	C0026031 C0026032				
CV Pass	HR 17	75 Green		C0026004	C0026005				
CV Pass	HR 22	45 75 Green		C0026024	C0026025				
CV Pass	HR 26	75 white		C0026014	C0026015	C0026016	C0026017		
Easyslide	HR 26s	75 Green				C0026050	C0026051		
Easyslide	HR 37	75 Green		C0026035	C0026036	C0026037	C0026038	C0026039	

Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.











PREMICRON®

NON-ABSORBABLE SUTURES

C Box of 36 units

B Box of 24 units

G Box of 12 units

Needle		Thread	USP metric						
		length cm colour	6/0 0.7	5/0 1	4/0 1.5	3/0 2	2/0 3	0 3.5	1 4
3/8 circle reverse cutting needle									
	DS 9 	45 Green	C0026192						
	DS 12 	45 75 Green	C0026171	C0026172 C0026242	C0026173				
	DS 16 	45 Green		C0026176	C0026177				
	DS 19 	45 Green		C0026551	C0026552	C0026553	C0026554		
	DS 24 	75 Green			C0026514	C0026515	C0026516	C0026517	C0026518



Needle illustration indicates approximate size only | Suffix "s" indicates heavy needle.

SUTURE CASSETTES

SUTURE MATERIAL AT A GLANCE



Description	Safil® Violet	MonoPlus® C
Structure	Polyfilament Braided Coated	Monofilament
Absorption Profile	Mid-term Hydrolysis	Long-term Hydrolysis
Chemical composition	Polyglycolic acid 100 % Gluconate coated	Polydioxanone
Colour	Violet	Violet
Knot tensile strength retention	14 days p.i. 70 % 18 days p.i. 50 % 30 days p.i. 0 %	21 days p.i. 80% 35 days p.i. 50% 70 days p.i. 0%
Mass absorption	60 - 90 days	180 - 210 days
Indications	<ul style="list-style-type: none"> ■ Subcutis ■ Abdominal wall closure ■ Muscle ■ Gynaecology ■ Gastro-intestinal 	<ul style="list-style-type: none"> ■ Abdominal wall closure ■ Fascias ■ Orthopaedics ■ Gastro-intestinal ■ Hernias ■ Vascular surgery
Contra-indications	Indications that require permanent support by implantation of long-term or non-absorbable suturematerial	Indications that require permanent support by implantation of non-absorbable suture material
Recommended knot technique	2=1=1=1	2 = 1 = 1 = 1

SUTURE CASSETTES

SUTURE MATERIAL AT A GLANCE



Description	Supramid	Dafilon	Steelex
Structure	Pseudo-monofilament	Monofilament	Monofilament
Absorption Profile	Pseudo non-absorbable	Pseudo non-absorbable	Non-absorbable
Chemical Composition	Polyamide 6.6 - thread core Polyamide 6 - sheath	Polyamide 6.6 - thread core	Steel
Colour	Black White	Blue	Silver
Knot tensile strength retention	N/A	N/A	N/A
Mass absorption	2 - 4 years	2-4 years	Permanent
Indications	<ul style="list-style-type: none"> ■ Skin ■ Hernias ■ Ligatures 	<ul style="list-style-type: none"> ■ Skin ■ Hernias ■ Ligatures 	<ul style="list-style-type: none"> ■ Skin ■ Orthopaedics ■ Tendons ■ Ligaments ■ Sternal sutures
Contra-indications	Indications where sustained stability of the suture is essential (> 2 years)	Indications where sustained stability of the suture is essential (> 2 years)	
Recommended knot technique	2 = 1 = 1 = 1	2 = 1 = 1 = 1	2 = 1 = 1 = 1

Safil® VIOLET

BRAIDED SYNTHETIC ABSORBABLE SUTURE



Gentle, strong, safe and versatile.

- Excellent histocompatibility
- Excellent knot holding capability
- Glyconate coated
- Universal application
- Alternative to Catgut

Once opened, the content of the cassette should be used within 6 months.

Safil® Violet	USP metric									
Length (m)	4/0	3/0	2/0	0	1	2	3	4	5	6
	1,5	2	2,5	3,5	4	5	6	6	7	8
Safil® Violet Cassette Packs										
15	F1038102	F1038103	F1038104	F1038105	F1038106	F1038107	F1038108		F1038109	F1038110

MONOPLUS® C

SYNTHETIC ABSORBABLE MONOFILAMENT SUTURE



A long term synthetic absorbable monofilament suture on cassette that offers good handling combined with great strength. MonoPlus® C is ideal for all indications where extended wound support is required.

- Great handling properties
- Secure knot holding
- Long-term absorption profile
- Alternative to Catgut

Once opened, the content of the cassette should be used within 4 months.

MonoPlus® C	USP metric									
Length m	4/0	3/0	2/0	0	1	2	3	4	5	6
	1,5	2	2,5	3,5	4	5	6	6	7	8
MonoPlus® C Cassette Packs										
25	F0024270	F0024271	F0024272	F0024273	F0024274	F0024275				

SUPRAMID

SYNTHETIC NON-ABSORBABLE SUTURE



A synthetic non-absorbable suture on cassette with exceptional handling qualities due to the combined benefits of monofilament and multifilament threads.

- High linear and knot tensile strength
- Economical skin closure
- Low tissue reactivity

Supramid	USP metric									
Length (m)	4/0	3/0	2/0	0	1	2	3	4	5	6
	1,5	2	3	3,5	4	5	6	6	7	8

Supramid Cassette Packs										
100	F1184032	F1184040	F1184059							
75				F1184067	F1184075					
50						F1184083	F1184091			
25								F1184105		F1184113

SILKAM

SYNTHETIC NON-ABSORBABLE SUTURE



Silkam® is a non-absorbable, braided and coated suture, made of natural silk filaments.

- Made from natural silk
- For use in Dental
- Basic skin closure

Supramid			USP metric								
Length (m)	6/0	5/0	4/0	3/0	2/0	0	1	2	3	4	5
	.7	1	1,5	2	3	3,5	4	5	6	6	7
Supramid Cassette Packs											
100	F1134019	F1134027	F1134035	F1134043	F1134051						
75						F1134060	F1134019				
50								F1134086	F1134094		
25										F1134108	F1134116

PRACTICAL ACCESSORIES



CASSETTE PACK HOLDER

Practical bench top storage device for all B. Braun cassette packs.



SUTURE RACK

The efficient storage device clearly arranges suture boxes. Each suture depot tier holds 4 x 36 or 8 x 12.

For holding up to 10 suture racks in a clear arrangement.
Can be used as either a wall-mounted or bench top holder.
(Mounting accessories included)



Description	Article No.
3 x Cassette Pack Holder	F1090268
6 x Cassette Pack Holder	F1090267
Suture Rack	1091255
Suture Rack Station	1091247

HISTOACRYL®

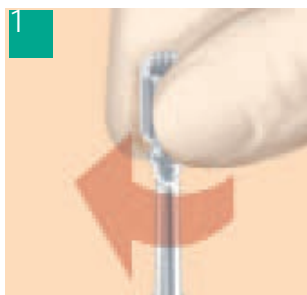
TISSUE ADHESIVE



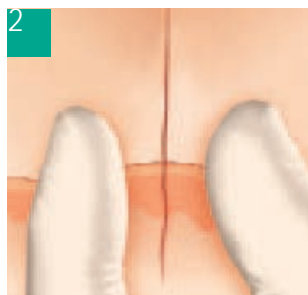
Skin that has been injured in an accident or by a surgical intervention traditionally is closed using sutures or staples. Alternatively, surgeons can elect to use a tissue adhesive. Histoacryl® consists of monomeric n-butyl-2-cyanocrylate, which polymerises quickly in contact with tissue fluid. Histoacryl® is dyed blue for high application visibility and is supplied in a sterile plastic ampoule with a twist-off tip for simple, accurate application

- Rapid wound closure
- Painless application - eliminates the pain of suture or staples
- Saves time and costs (local anaesthetics, suture/staple removal or second consultation may not be required)
- Antibacterial film protects the wound
- Simple and precise dosage due to slim cannula and blue dye
- Hernia Mesh fixation in laparoscopic and laparotomy Sclerosation Therapy

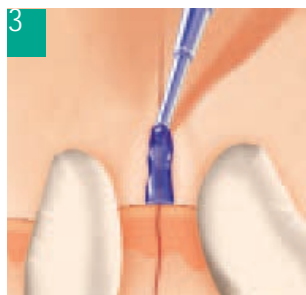
INSTRUCTIONS FOR USE:



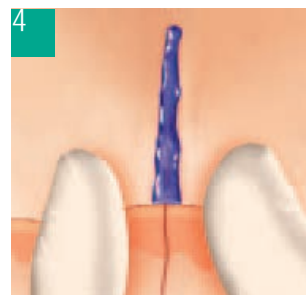
1 Clean the wound and turn open the ampoule



2 Adapt wound edges (wounds under tension and/or longer than 3cm require additional suturing)



3 Apply Histoacryl® sparingly, do not allow tissue adhesive to flow into the wound



4 Keep wound edges aligned for about one minute - that's all!

Histoacryl® - Twist-off tip

Simply twist-off the ribbed tip from the ampoule, then Histoacryl® can be applied precisely with the slim, sterile cannula.

Description	Box Size	Colour	Article No.
5 x 0.5ml Histoacryl®	5 pcs	blue	105 0052
10 x 0.5ml Histoacryl®	10 pcs	blue	105 0044

MANIPLER® AZ

THE EASY SOLUTION FOR SKIN CLOSURE



The Easy Solution for skin closure

- Manipler AZ skin stapler delivers fast closure at the end of any surgical procedure
- High performance and “jam-free”
- Lightweight Design
- High Quality Construction
- Assures consistent, reliable performance
- Slim grip design
- Provides excellent visibility and allows for easy handling with no hand fatigue
- Unique angled head
- Enables the user to see the incision from a normal viewing perspective to ensure precise staple deployment
- Staple count indicator provides a direct view of staples remaining to help minimise waste

Description	Box Qty	Article Number	Staples Included
Manipler® AZ	6	783100	35
Single use skin stapler remover	6	783101	N/A
Reusable Staple	1	783102	1

HAEMOSTASIS

BONE WAX

FOR MECHANICAL CONTROL OF HAEMORRHAGES IN BONE INJURIES



Bone Wax is a sterile mixture of beeswax (70%) and Vaseline (30%), which can be moulded and applied in a 'hand warm' condition.

- Soft, easy to form and apply

Indication:

- Neurosurgery (e.g. Trepanations)
- Orthopaedics and traumatology
- Thorax surgery
- Dental, oral and mandibular surgery

Description	Contents	Article Number
Sterile Bone Wax	24 pieces	1029754

GELITA®

GELATIN HEMOSTAT



Gelita® is a tampon for local hemostasis with a wide variety of indications.

- Biocompatible
- Absorbed within 3 weeks
- No effects on normal healing
- Can be used as carrier for antibiotics or coagulation agents (gentamycin)
- Adheres to hard-to-reach sites
- Can be cut to desired size
- Does not stick to gloves or instruments

Indications:

- Dentistry and Maxillar Surgery to fill spaces & control bleeding.
- Thoracic surgery to fill spaces after lymph node removal.
- Biopsy site control

To stop venous-capillary or parenchymatous hemorrhage in:

- Orthopedic surgery
- Vascular Surgery
- General Surgery

Description	Size (cm)	Box Qty	Article Code
Gelita®	1 x 1 x 1	10 tampons	207 0014
Gelita®	8 x 5 x 1	10 tampons	207 0600

RECONSTRUCTION

OPTILENE® MESH

UNIVERSAL - LIGHT WEIGHT MESH FOR HERNIAS AND RECONSTRUCTIVE SURGERY



Optilene® Mesh is a soft, elastic or low profile (LP) monofilament polypropylene mesh with large pores that deliver strength and excellent spread characteristics. The blue guidelines allow for a well directed placement and it provides optimal handling for open and laparoscopic applications.

- Large pores support fast tissue integration
- High elasticity and low rigidity reduce patient discomfort
- Blue guidelines assist measured placement
- Good histocompatibility
- Can be tacked in place with Histoacryl®
- Open and laparoscopic procedures
- Fully Transparent

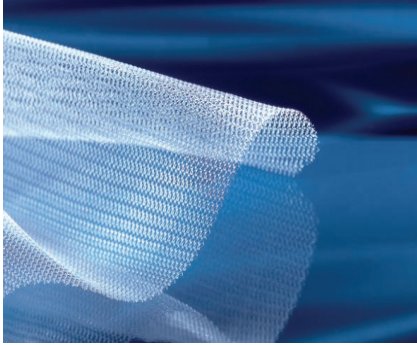
Product Features:

- Implantation in contaminated or infected area
- Implantation in young animals during the growth phase

Description	Dimensions	Contents	Article No.
Optilene® Mesh LP	15 x 15cm	5 pieces	1064705
Optilene® Mesh LP	7.5 x 10cm	5 pieces	1064715
Optilene® Mesh LP	10 x 15cm	5 pieces	1064725
Optilene® Mesh LP	5 x 10cm	5 pieces	1064735
Optilene® Mesh Elastic	30 x 30cm	5 pieces	1064900
Optilene® Mesh Elastic	15 x 15cm	5 pieces	1064910
Optilene® Mesh Elastic	10 x 15cm	5 pieces	1064920
Optilene® Mesh Elastic	7.5 x 15cm	5 pieces	1064930
Optilene® Mesh Elastic	20 x 30cm	5 pieces	1064940

PREMILENE® MESH

FOR HERNIA REPAIR AND RECONSTRUCTION OF ABDOMINAL AND CHEST WALL



Premilene® Mesh is highly transparent so that the tissue underneath is visible during surgery.

- Aids rapid healing and tissue penetration
- Closed, rounded edges
- Thin mesh structure
- Excellent transparency and handling ,well tolerated
- Good stability and compatible with Histoacryl®

Indications	Contra-indications
<ul style="list-style-type: none">■ Hernia repair■ Reconstruction of the chest wall■ Reinforcement of fascial tissue, when non-absorbable reinforcement material is required■ For conventional and minimally invasive techniques	<ul style="list-style-type: none">■ Implantation in contaminated or infected areas■ Implantation in young animals during the growth phase

Description	Dimensions	Contents	Article No.
Premilene® Mesh	3 x 10cm	5 pieces	1064305
Premilene® Mesh	5 x 10cm	5 pieces	1064315
Premilene® Mesh	7.5 x 7.5cm	5 pieces	1064415
Premilene® Mesh	7.5 x 15cm	5 pieces	1064425
Premilene® Mesh	10 x 15cm	5 pieces	1064495
Premilene® Mesh	15 x 15cm	5 pieces	1064435
Premilene® Mesh	5 x 30cm	5 pieces	1064445
Premilene® Mesh	30 x 30cm	5 pieces	1064455
Premilene® Mesh	26 x 36cm	5 pieces	1064465

EDUCATION

SUTURE PRACTICE TOOLS

SHARING EXPERTISE



As part of our committment to sharing expertise, B. Braun VetCare offer a range of tools that are designed to further enhance the skills of veterinary practitioners in the field of closure technology. These tools include a comprehensive knotting and suturing technique booklet that demonostrates how to tie common knots. A knot tying board is also available, allowing users to practice the knot tying techniques from the booklet.

Description	Box Qty	Article No.
Knot Tying Board Deluxe	1	BBSE-549-02
Knotting and Suturing Technique Booklet	1	BBSE-125-02
Skin Suture Pad	1	TSP-10