# OMNIA SURGICAL SUTURES



# THE RIGHT SUTURE FOR ALL YOUR SURGICAL NEEDS

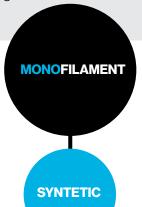
# MONOFILAMENT VS. MULTIFILAMENT





#### **MONOFILAMENT**

- Encounter less resistance as they pass through tissue
- They resist harboring organisms
- These characteristics make monofilament sutures well-suited to vascular surgery
- Extreme care must be taken when handling and tying these sutures
- Crushing or bending of this suture type can create a weak spot in the strand. This may result in suture breakage
- Monofilaments usually require more knots to prevent slippage



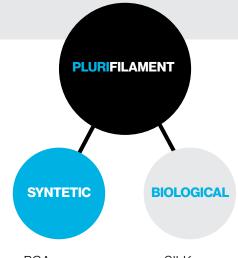
- POLYPROPYLENE
- POLYAMIDE
- PGCL
- PTFE





## **MULTIFILAMENT**

- They offer greater tensile strength and flexibility Pliability, easier to handle
- Multifilament sutures may be coated to help them pass relatively smoothly through tissue and enhance handling characteristics
- Coated multifilament sutures are well-suited to intestinal procedures



- PGA
- POLYESTER
- PGLA RAPID





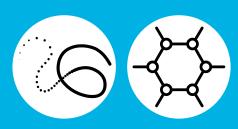
# **SURGICAL SUTURES**

The purpose of the surgical suture (medical device) is to hold body tissues of the surgical wound together until the healing process progresses to such an extent that it is not considered necessary to further support it.

Main parts of a surgical suture are the thread and the needle, and a number of different shapes, sizes and thread material have been developed over the last decades.

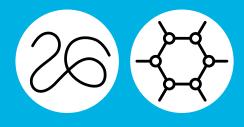
Our goal is to develop and produce the perfect suture for all of your dental procedures. We achieve this by choosing the best suppliers and keeping our production and quality updated with the high standards of Pharmacopeia (US & EP).

# **OMNIA SUTURES**



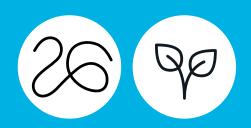
# ABSORBABLE SYNTHETIC SUTURES

- PGA
- PGCL
- PGLA RAPID



# NON ABSORBABLE SYNTHETIC SUTURES

- POLYESTER
- POLYAMIDE
- POLYPROPYLENE
- PTFE



NON ABSORBABLE NATURAL SUTURES

• SILK

# ABSORBABLE VS. NON ABSORBABLE

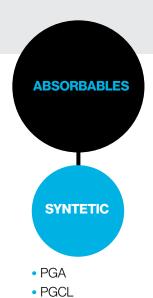
# **ABSORBABLE**

#### **PRO**

- Broken down by body.
- body left.

### **CONTRA**

- Consideration of wound support time.
- Attention to the absorption time.



PGLA RAPID

# **NON ABSORBABLE**

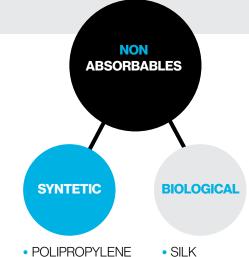
### **PRO**

Permanent wound support.



#### **CONTRA**

- Foreign body left.
- Suture removal can be costly and inconvenient.
- Sinus & extrusion if left in place.



- POLIPROPYLENE
- POLYAMIDE
- POLYESTER
- PTFE

SYNTHETIC VS. BIOLOGICAL

## **SYNTHETIC**

#### **PRO**

- Non-absorbable are inert/inactive
- Absorbable resemble natural substances
- Absorption by hydrolysis
- Predictable absorption
- Strength

#### **CONTRA**

Monofilament handling

# **BIOLOGICAL**

#### **PRO**

Handling & knotting Economy



Tissues Reaction





# PRODUCTION: 4 STEPS FOR PERFECT SUTURES



**CUTTING+ TIPPING** The process of cutting and tipping the surgical sutures.



**ATTACHING PROCESS** Surgical sutures attaching machine provides a secure way to attach drilled end



**CONTROL** Quality control is introduced in all aspects of production.

**QUALITY** 

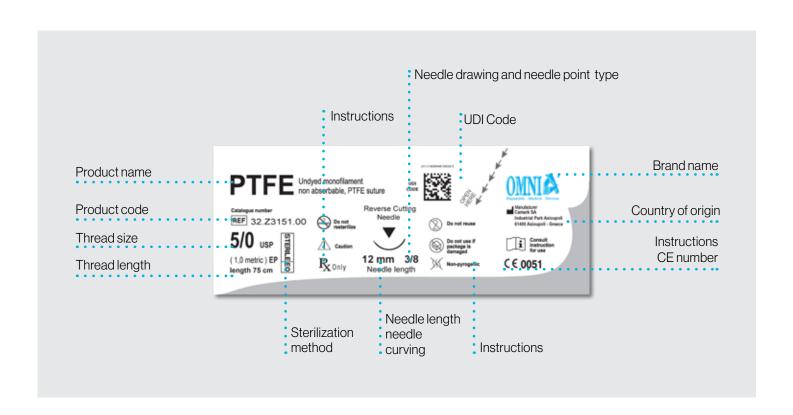


**STERILIZATION** Medical device packaging and sterilization.

**PACKAGING+** 

# **HOW TO READ THE SUTURE LABEL**

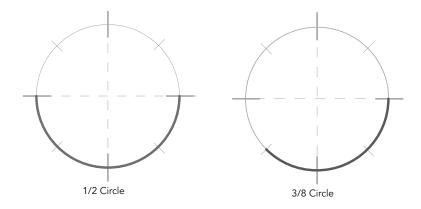
needles.

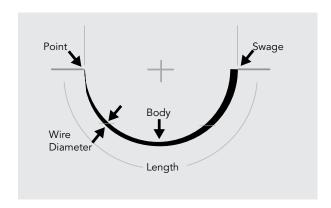


For more informations on all the sutures available please visit:



# **NEEDLE SHAPES AND ANATOMY**





**Length:** distance measured along the circumference of the needle, from the point to the swage. It is depicted on the packaging.

**Shape:** different surgeries or surgical techniques demand different needle shapes.

**Point:** the sharpened part of the needle that first penetrates the tissue. The point consist of the area from the sharpened tip of the needle to the widest cross section of the needle body. The point determines ease of penetration and the initial size and shape of the hole.

**Swage:** Connection point of the suture and the needle.

Wire Diameter: gauge or thickness of the wire originally used to form the needle body.

**Body:** the part between the point and the swage of the needle.

**Curvature:** the fraction of the circle included in the curve of the needle.

# **NEEDLE POINTS AND CUTTING EDGES**

Needle type	Point geometry	Description	Commonly used for
Reverse Cutting	•	Due to its cutting edges, this needle easily penetrates tissues and is suitable for almost all uses. It provides an excellent penetration capacity and great solidity, and is fit for sutures with periosteum incision and in case of thick mucosa.	Oral surgery Exodontia
Extra Reverse Cutting		Indictated for hard tissue, extra cutting needle has very sharp edge for good penetration and less trauma.	Microsurgery Periodontal
Taper Cut		Quadrangular pyramid-shaped point and a round body. This particular shape allows any easy penetration of soft tissues without causing lacerations, and preventing the needle from rotating in the needle-holder. This needle is appreciated and suitable for oral surgery.	Implantology Mucogingival
Round Body	•	Mainly used for soft tissues, and is characterized by a good penetration of tissues without causing lacerations or tissue damage.	Soft tissue Tissue infected

MULTIFILAMENT - ABSORBABLE SYNTHETIC - UNDYED

Composed of a copolymer made from 90% glycolide and 10% L-lactide. The special coating offers a great ease of knotting and excellent hold of the knot also has a low bacterial adhesion.

Suture absorption will be completed in 42 days by hydrolysis. The hold of the suture will be 50% of the total after 5 days and total loss between 10 to 14 days. Thanks to the non-need to remove the stitches, it is a very versatile suture that lends itself to multiple uses in the field of oral surgery.



- Smooth passage through tissue
- Easy knotting
- Minimal inflammatory reaction
- Low memory

# **APPLICATION:**

• Multiple uses in the field of oral surgery when short-term support is needed.



Thread size	Needle type	Point type	Needle length	Needle curving	Wire length	Code	Pcs./box
4/0	Reverse Cutting	lacktriangle	16 mm	3/8 circle	75 cm	32. <b>Z</b> 3450.00	12
5/0	Reverse Cutting	•	16 mm	3/8 circle	75 cm	32. <b>Z</b> 3451.00	12
5/0	Extra Reverse Cutting	wblack	12 mm	3/8 circle	45 cm	32. <b>Z</b> 3452.00	12
6/0	Extra Reverse Cutting		12 mm	3/8 circle	45 cm	32. <b>Z</b> 3453.00	12
5/0	Reverse Cutting	lacktriangle	12 mm	1/2 circle	75 cm	32. <b>Z</b> 3454.00	12
6/0	Reverse Cutting	•	12 mm	1/2 circle	75 cm	32.Z3455.00	12

# **PGCL SUTURES**

MONOFILAMENT - ABSORBABLE SYNTHETICS - VIOLET

Composed of a copolymer of Polyglycolic acid and Polycaprolactone. In periodontal surgery its monofilament characteristics allow for less plaque retention. The progressive loss of tensile strength and suture absorption occurs by hydrolysis, in which the polymer degrades in to a dipic acid which is subsequently absorbed and metabolized by the tissues. Absorption begins as loss of tensile strength with out appreciable loss of mass. PGCL suture retention is 68-78% of the initial tensile strength after the first week and about 30% after the end of the second week. Suture absorption is essentially complete after a period of 90-110 days. Its original tensile strength is up to 14 days and runs out after 28 days.



## **CHARACTERISTICS:**

- Extremely manageable and smooth
- Low memory
- God knotting
- Minimal inflammatory reaction

# **APPLICATION:**

- Flaps
- Regenerationy
- Implants
- Mucogingival Surgery
- Oral Surgery

Thread size	Needle type	Point type	Needle length	Needle curving	Wire length	Code	Pcs./box
4/0	Reverse Cutting	•	16 mm	3/8 circle	75 cm	32.Z3300.00	12
5/0	Extra Reverse Cutting	w	12 mm	3/8 circle	45 cm	32.Z3301.00	12
5/0 New	Reverse Cutting	•	16 mm	3/8 circle	75 cm	32. <b>Z</b> 3302.00	12
6/0 New	Extra Reverse Cutting	lacksquare	12 mm	3/8 circle	45 cm	32. <b>Z</b> 3304.00	12
4/0	Reverse Cutting	lacktriangle	19 mm	3/8 circle	75 cm	32. <b>Z</b> 3303.00	12

# **PGA SUTURES**

MULTIFILAMENT - ABSORBABLE SYNTHETICS - VIOLET

PGA sutures have synthetic origin and are made with a multi-thread consisting of braided Polyglycolic Acid, coated with a layer of Polycaprolactone copolymer. The woven structure offers a great ease of knotting and excellent hold of the knot also has a low bacterial adhesion. Suture resorption will be completed between the fiftieth and ninetieth day. The hold of the suture will be 65% of the total after 2 weeks and 35% of the total at the end of the third week. Thanks to the non-need to remove the stitches, it is a very versatile suture that lends itself to multiple uses in the field of oral surgery.



### **CHARACTERISTICS:**

- Easy to knot and excellent knot stability
- Low microbial load

### **APPLICATION:**

Very versatile suture that lends itself to multiple uses in the field of oral surgery.

Thread size	Needle type	Point type	Needle length	Needle curving	Wire length	Code	Pcs./box
3/0	Reverse Cutting	lacktriangle	19 mm	3/8 circle	75 cm	32.Z3057.00	24
4/0	Reverse Cutting	•	16 mm	3/8 circle	75 cm	32.Z3063.00	24
4/0	Reverse Cutting	•	19 mm	3/8 circle	75 cm	32.Z3059.00	24
4/0	Taper Cut	$\odot$	17 mm	1/2 circle	75 cm	32.Z3066.00	24
5/0	Reverse Cutting	•	12 mm	1/2 circle	75 cm	32.Z3070.00	24
5/0	Reverse Cutting	▼	16 mm	3/8 circle	75 cm	32.Z3056.00	24
5/0	Extra Reverse Cutting	$ wbegin{picture}(20,0) \put(0,0){\line(1,0){10}} \put(0,$	12 mm	3/8 circle	45 cm	32.Z3062.00	12
6/0	Extra Reverse Cutting		12 mm	3/8 circle	45 cm	32.Z3061.00	12
6/0	Extra Reverse Cutting	<b>V</b>	10 mm	3/8 circle	45 cm	32.Z3064.00	12
7/0	Extra Reverse Cutting	•	7 mm	1/2 circle	45 cm	32.Z3067.00	12
7/0	Extra Reverse Cutting	lacksquare	10 mm	3/8 circle	45 cm	32.Z3065.00	12

# **POLYESTER SUTURES**

MULTIFILAMENT - NON ABSORBABLE SYNTHETIC - GREEN

Polyester is a non-absorbable multifilament suture, which is made of polyethylene terephthalate (PET), a biologically inert material causing minimal tissue reaction. Fibers are dyed in green with D&C Green No. 6 coloring agent. The suture is coated with silicone to make its surface smoother and uniform. It is characterized by a higher tensile strength than silk and a reduced risk of tissue reactions.

# **CHARACTERISTICS:**

- Excellent initial and prolonged durability
- Low risk of reactions Biocompatible
- Strong knotting
- Easy and flexible thread

### **APPLICATION:**

Oral Surgery



Thread size	Needle type	Point type	Needle length	Needle curving	Wire length	Code	Pcs./box
3/0	Reverse Cutting	lacktriangle	19 mm	3/8 circle	75 cm	32. <b>Z</b> 3006.00	24
3/0	Taper Cut	$\odot$	17 mm	1/2 circle	75 cm	32. <b>Z</b> 3001.00	24
4/0	Reverse Cutting	lacktriangle	12 mm	3/8 circle	75 cm	32. <b>Z</b> 3003.00	24
4/0	Reverse Cutting	•	16 mm	3/8 circle	75 cm	32. <b>Z</b> 3004.00	24
4/0	Reverse Cutting	•	19 mm	3/8 circle	75 cm	32. <b>Z</b> 3005.00	24
4/0	Taper Cut	$\odot$	17 mm	1/2 circle	75 cm	32. <b>Z</b> 3002.00	24
5/0	Taper Cut	$\odot$	18 mm	3/8 circle	75 cm	32. <b>Z</b> 3007.00	24
6/0	Taper Cut	$\odot$	18 mm	3/8 circle	75 cm	32.Z3008.00	24
6/0	Extra Reverse Cutting	abla	12 mm	3/8 circle	45 cm	32.Z3009.00	12

# **POLYAMIDE SUTURES**

#### MONOFILAMENT - NON ABSORBABLE SYNTHETIC - LIGHT BLUE

Polyamide is a synthetic material which makes it possible to produce high quality non-absorbable monofilament sutures. The suture features a smooth, even surface, it is easy to handle and the monofilament has a low memory. The biological behavior envisages a negligible tissue reaction, while the lack of bacterial adhesion and high resistance even with small diameters makes this suture ideal for all implant and periodontal procedures. The excellent quality price ratio extends its use to small extractive surgery.



# **CHARACTERISTICS:**

- Excellent gliding through the tissues
- Easy to knot and excellent knot stability
- Negligible bacterial adhesion
- Excellent elasticity

### **APPLICATION:**

- Flaps
- Regenerationy
- Implants
- Mucogengival Surgery
- Oral Surgery

Thread size	Needle type	Point type	Needle length	Needle curving	Wire length	Code	Pcs./box
4/0	Reverse Cutting	lacktriangle	16 mm	3/8 circle	75 cm	32. <b>Z</b> 4622.00	24
4/0	Reverse Cutting	•	17 mm	1/2 circle	75 cm	32. <b>Z</b> 4623.00	24
4/0	Reverse Cutting	lacktriangledown	12 mm	3/8 circle	75 cm	32. <b>Z</b> 4611.00	24
4/0	Reverse Cutting	•	16 mm	3/8 circle	75 cm	32.Z4621.00	24
6/0	Reverse Cutting	•	16 mm	3/8 circle	75 cm	32. <b>Z</b> 4620.00	24

# **POLYPROPYLENE SUTURES**

MONOFILAMENT - NON ABSORBABLE SINTHETICS - BLUE

Polypropylene is a synthetic, non-absorbable monofilament suture. It is particularly biocompatible with the tissues with easy removal from the patient. Because it does not degrade and does not attenuate, it offers a high resistance to the tissue compaction. Also due to its monofilament property it is indicated for use in areas prone to bacteria.

#### **CHARACTERISTICS:**

- Easily tissue penetration
- Secured knots
- High tensile strength
- Low microbial load
- Low tissue reaction

# **APPLICATION:**

- Flaps
- Regenerationy
- Implans
- Mucogengival Surgery
- Oral Surgery



Thread size	Needle type	Point type	Needle length	Needle curving	Wire length	Code	Pcs./box
4/0	Reverse Cutting	▼	16 mm	3/8 circle	75 cm	32. <b>Z</b> 3100.00	24
5/0	Reverse Cutting	•	12 mm	3/8 circle	75 cm	32. <b>Z</b> 3102.00	24
5/0	Reverse Cutting	lacktriangledown	16 mm	3/8 circle	75 cm	32. <b>Z</b> 3101.00	24
6/0	Extra Reverse Cutting	$\overline{\mathbf{v}}$	12 mm	3/8 circle	45 cm	32.Z3103.00	12

# **PTFE SUTURES**

MONOFILAMENT - NON ABSORBABLE WHITE

PTFE Surgical Suture (Polytetrafluoroethylene) are ideal for all implant, periodontal and bone grafting procedures where the use of a monofilament suture with low bacterial adhesion is desirable. Unlike other synthetic monofilament sutures, the material is exceptionally well tolerated in the oral cavity.

# **CHARACTERISTICS:**

- Particularly soft for the patient
- Biologically inert
- Excellent Biocompatibility
- Chemically non-reactive
- No memory
- Resistant
- Superior fluency in oral tissue

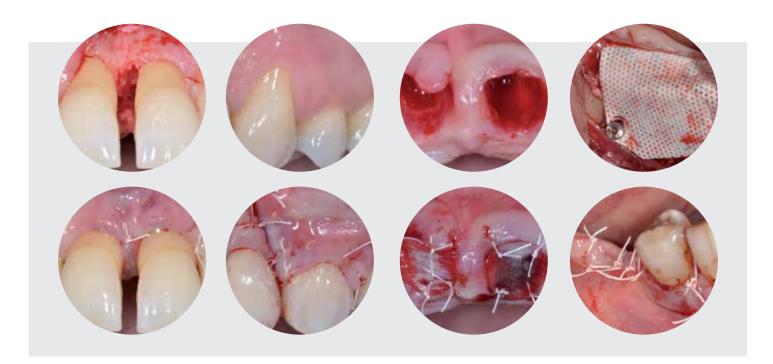
# **APPLICATION:**

PTFE suture is indicated for use in all types of soft tissue approximation and/or ligation, including cardiovascular, dental and general surgeries, as well as repair of the dura mater. The device is not indicated for use in ophthalmic surgery, microsurgery and peripheral neural tissue.



Thread size	Needle type	Point type	Needle length	Needle curving	Wire length	Code	Pcs./box
2/0	Reverse Cutting	•	19 mm	3/8 circle	75 cm	32. <b>Z</b> 3120.00	12
3/0	Reverse Cutting	•	19 mm	3/8 circle	75 cm	32. <b>Z</b> 3130.00	12
4/0	Reverse Cutting	•	16 mm	3/8 circle	75 cm	32. <b>Z</b> 3141.00	12
4/0	Taper Cut	8	18 mm	3/8circle	75 cm	32.Z3240.00	12
4/0	Taper Cut Black needle	•	16 mm	3/8 circle	45 cm	32. <b>Z</b> 3143.00	12
5/0	Reverse Cutting	▼	12 mm	3/8 circle	75 cm	32.Z3151.00	12
5/0	Reverse Cutting	•	12 mm	1/2 circle	75 cm	32. <b>Z</b> 3150.00	12
5/0	Taper Cut	8	18 mm	3/8 circle	75 cm	32. <b>Z</b> 3250.00	12
5/0	Taper Cut Black needle	•	13 mm	3/8 circle	45 cm	32. <b>Z</b> 3152.00	12
5/0	Extra Reverse Cutting	$\overline{\mathbf{v}}$	12 mm	3/8 circle	45 cm	32. <b>Z</b> 3252.00	12
6/0	Reverse Cutting	lacktriangledown	11 mm	1/2 circle	75 cm	32. <b>Z</b> 3160.00	12
6/0	Taper Cut	$\odot$	10 mm	1/2 circle	75 cm	32. <b>Z</b> 3260.00	12
6/0	Extra Reverse Cutting	$ wbegin{picture}(20,0) \put(0,0){\line(1,0){10}} \put(0,$	10 mm	3/8 circle	45 cm	32. <b>Z</b> 3161.00	12
7/0	Extra Reverse Cutting	$\overline{\mathbf{V}}$	10 mm	3/8 circle	45 cm	32.Z3270.00	12

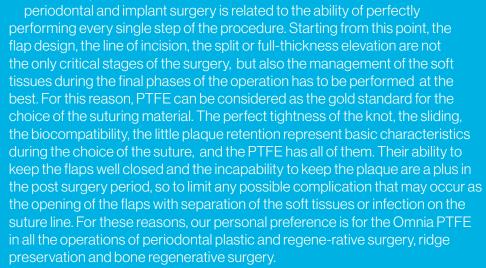
# WHAT DO OUR OPINION LEADERS SAY?



66







**Dr. Daniele Cardaropoli** 



"

OMNIA sutures are superior in quality and provide me with excellent hanling qualities and ease of flap closure.

Dr. Maurice Salama, DMD



# **SILK SUTURES**

MULTIFILAMENT - NON ABSORBABLE NATURAL - BLACK

Non-absorbable, multifilament suture made from natural silk. The thread has a silicon coating to create a smoother and uniform surface and is dyed black for enhanced visibility. It offers excellent penetration and high strength and is suitable for intersection of the periosteum and in the presence of substantial mucous membranes.

# **CHARACTERISTICS:**

- Easy to use and flexible
- Secure knots
- High tensile strength
- Low memory
- Low price

# **APPLICATION:**

Oral Surgery



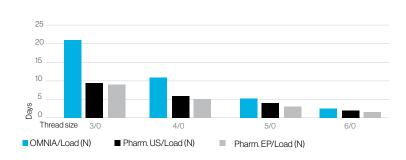
Thread size	Needle Type	Point Type	needle length	Needle curving	Wire length	Code	pcs./box
2/0	Taper Cut	$\Theta$	22 mm	1/2 Circle	75 cm	32.Z3013.00	24
2/0	Round Body	•	22 mm	1/2 Circle	75 cm	32. <b>Z</b> 3021.00	24
3/0	Reverse Cutting	•	16 mm	3/8 circle	75 cm	32. <b>Z</b> 3032.00	24
3/0	Reverse Cutting	•	19 mm	3/8 circle	75 cm	32.Z3034.00	24
3/0	Taper Cut	$\odot$	17 mm	1/2 Circle	75 cm	32. <b>Z</b> 3011.00	24
3/0	Taper Cut	$\odot$	22 mm	1/2 Circle	75 cm	32. <b>Z</b> 3012.00	24
3/0	Round Body	lacktriangle	17 mm	1/2 Circle	75 cm	32. <b>Z</b> 3022.00	24
3/0	Round Body	•	22 mm	1/2 Circle	75 cm	32. <b>Z</b> 3020.00	24
4/0	Reverse Cutting	•	12 mm	3/8 circle	75 cm	32. <b>Z</b> 3030.00	24
4/0	Reverse Cutting	•	16 mm	3/8 circle	75 cm	32.Z3033.00	24
4/0	Reverse Cutting	•	19 mm	3/8 circle	75 cm	32. <b>Z</b> 3031.00	24
4/0	Taper Cut	9	17 mm	1/2 Circle	75 cm	32. <b>Z</b> 3010.00	24
4/0	Taper Cut	$\odot$	18 mm	3/8 circle	75 cm	32. <b>Z</b> 3014.00	24
4/0	Round Body	•	17 mm	1/2 Circle	75 cm	32. <b>Z</b> 3023.00	24

# THE TENSILE STRENGTH OF OUR SUTURES

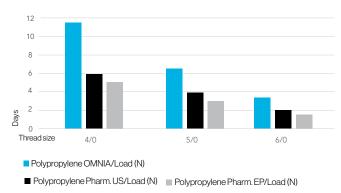
For a surgeon the selection of a suture material is one of the most important choices. One of the most critical handling characteristics of this material is the strength. The strength of a suture material is important for different reasons, including the ability of the suture to withstand knotting and the imposed stress when used to bring soft tissues close. Sutures of low strength will tend to break during surgery or, more seriously, post-surgery (after surgery).

If this happens, the surgeon has to waste time and effort in re-suturing the wound while in the latter case, not closing the wound might cause an infection. The below diagrams show the high tensile strength Omnia sutures have according to the US and European Pharmacopeia.

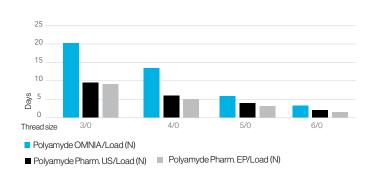
## TENSILE STRENGTH OMNIA POLYESTER



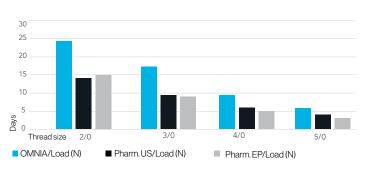
### TENSILE STRENGTH OMNIA POLYPROPYLENE



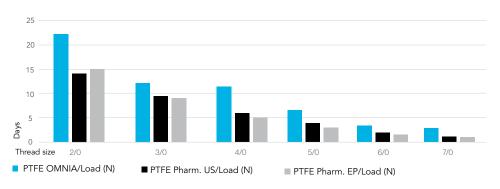
# TENSILE STRENGTH OMNIA POLYAMIDE

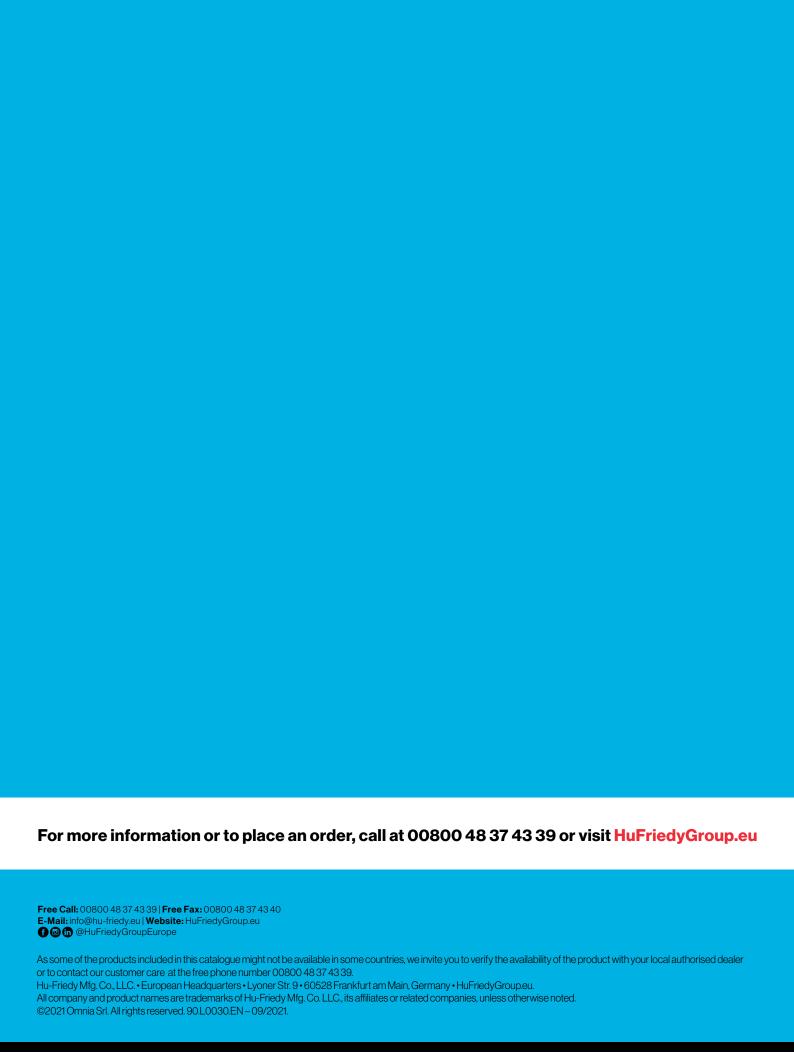


### TENSILE STRENGTH OMNIA SILK



## TENSII E STRENGTH OMNIA PTFE





**HuFriedyGroup**