



# Surgical Sutures Manufacturer



CAMARK  
EFFICIENT



# Who we are

**Camark SA** is a company born in 2016 in Greece and is part of Cantel Medical Company. Our mission is the production of surgical sutures for different kinds of markets, with high quality materials and certificated production techniques.



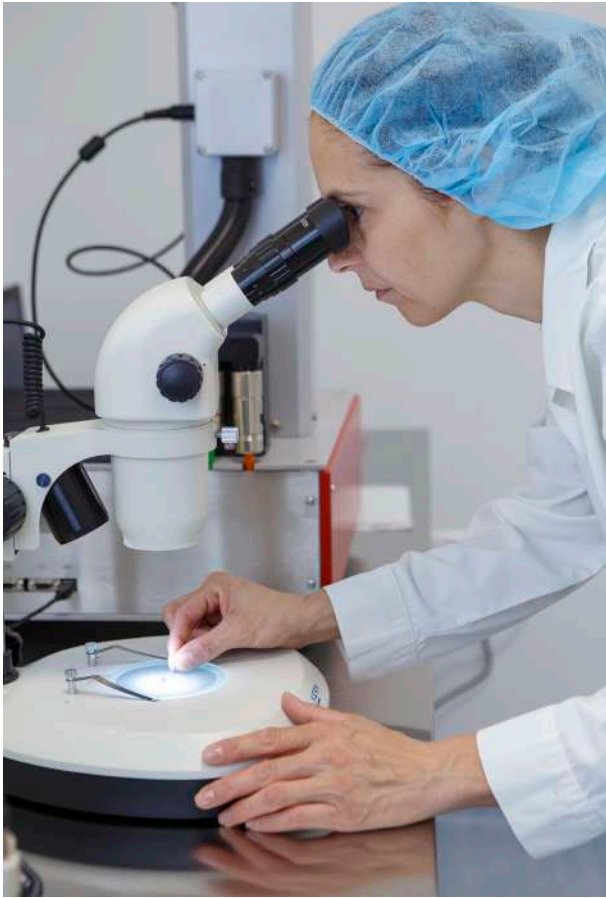
- **Location:**  
Industrial Park Axioupolis  
Province: Kilkis  
Country: Greece
- **Total area** of 7.200 m<sup>2</sup> , which 2.000 m<sup>2</sup> are Buildings:  
Offices, Clean Room, Production, Warehouse.
- **Fully equipped** production and storage facilities for medical devices.
- **Production capacity:** 4.5 million pcs/year, with capability to multiply the capacity in order to meet every client's expectation.





# Camark production

## Our CleanRoom

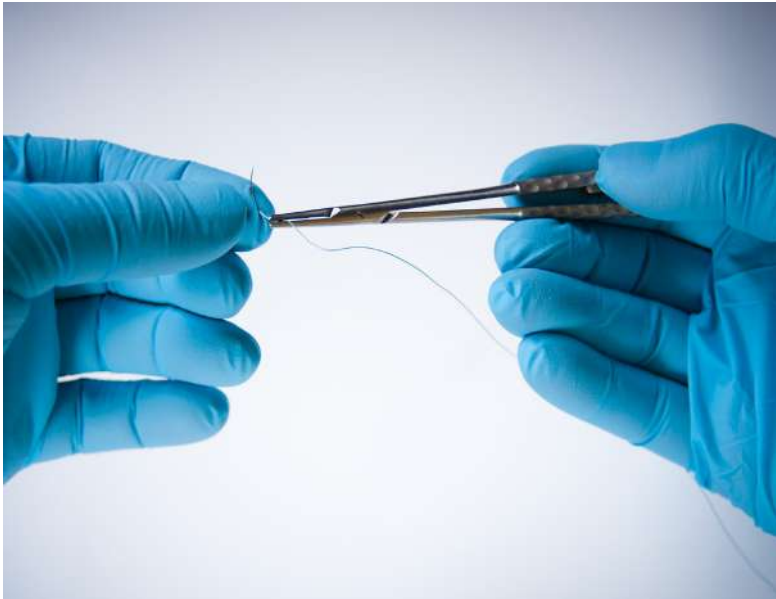


- Construction **2017**
- **300** sq.m.
- **EU GMP** classification: Grade **D / ISO CLASS 8**.
- The air handling systems are designed according to the requirements of **ISO 14644-1** and **ISO 14698: ISO 8**.
- All areas have High Efficiency Particulate (HEPA) Filters.
- Temperature and relative humidity are controlled ensuring stability of the environmental condition during the manufacturing process.
- Interlock Doors to control the air flow (from inside to outside).
- Isolation Floor (special construction in Germany).
- Antimicrobial walls.
- 2-layers of Glass.
- All surfaces made of Stainless Steel.



# How we work

*Our Production, 4 steps for perfect sutures*



The entire manufacturing area is designed to meet cleanliness standard equivalent to ISO Class 8. This provides an environment which protects from external contamination.

Camark has implemented clean room manufacturing process according to ISO 14644-1 standard.

The production area is controlled in terms of air filtering and ventilating system, which provides constant concentration of particles inside the two different spaces of our clean room. In every space of the cleanroom different production processes are performed in order to ensure a high quality end product.

# How we work

*Our Production, 4 steps for perfect sutures*



**1**

## Cutting + tipping

The process of cutting and tipping the surgical sutures.

A smooth cut of sutures to the desirable length and stiffening of the threads end secure an easy attachment into drilled needles.

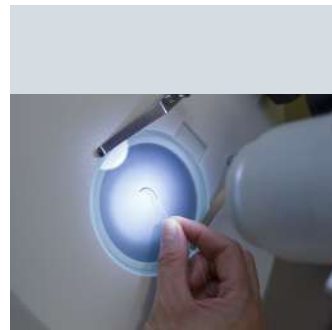


**2**

## Attaching process

Surgical sutures attaching machine provides a secure way to attach drilled end needles.

The operation is performed by placing the needle between the attaching dies and the suture material is inserted into the needle hole. Then, thanks to the pressing machine, the needle is crimped to the suture.



**3**

## Quality control

Quality control is introduced in all aspects of production. Each production process is subject to a strict quality control. Quality inspections and tests are conducted throughout the entire production flow.



**4**

## Packaging + sterilization

Medical device packaging and sterilization. Certified medical packaging materials and efficient ethylene oxide sterilization process ensure the production of an excellent quality product.

# Why to choose Camark

## We are Safe

- Factory built according to European and International Standards.
- Raw materials from reliable suppliers, chosen through rigorous selection processes.



## We are Fast

- Easy and convenient delivery.
- Term of payment adjusted to the financing programs of our customers.
- Wide range of standard and customized solutions.
- Supply through reliable and authorized partners.



## We are Easy

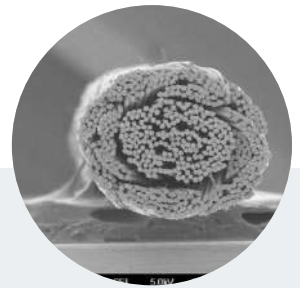
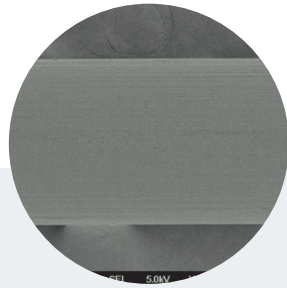
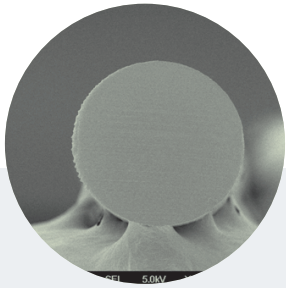
- New company with a 15-years deep knowledge of the dental market.
- Easy access to our facilities and our people with immediate information.
- Continuous evolvement and adaptation to new Technologies and Products.
- Tradition in long-term collaborations.
- Permanent and on-time information updates to our customers.
- Complete training of our customers and partners, with auxiliary materials such as brochures and skin trainers.



# Which products we can offer

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).

## Monofilament and 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.

### 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.

### MONOFILAMENT

#### SYNTHETIC

- PTFE
- POLYAMIDE
- POLYPROPYLENE
- PGCL
- PDO

### PLURIFILAMENT

#### SYNTHETIC

- POLYESTER
- PGA
- PGLA
- PGLA RAPID

#### BIOLOGICAL

- SILK



# Which products we can offer

## Absorbable vs. Non Absorbable

### ABSORBABLE

#### PRO

- Broken down by body.
- body left.

#### CONTRA

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



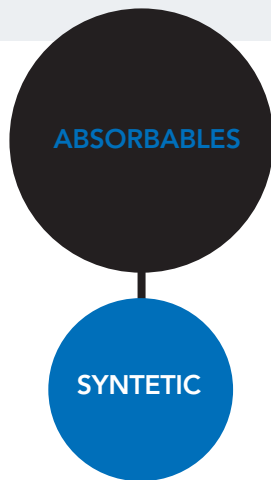
### NON ABSORBABLE

#### PRO

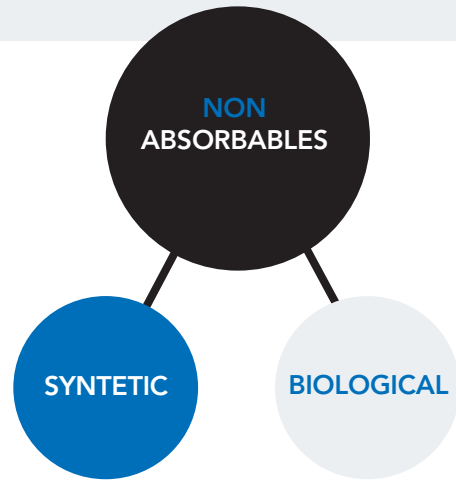
- Permanent wound support.

#### CONTRA

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



- PGA
- PGLA
- PGLA RAPID
- PGCL
- PDO



- PTFE
- POLYAMIDE
- POLYPROPYLENE
- POLYESTER
- SILK

## 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

#### CONTRA

Tissues Reaction



# Threads & Needle technical data

## Thread details

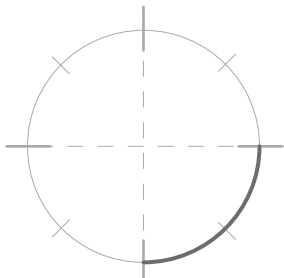
Thread size in USP metric

Most common in medical & veterinary											
4	3	2	1	0	2/0	3/0	4/0	5/0	6/0	7/0	8/0
Most common in dental											

Thread length:

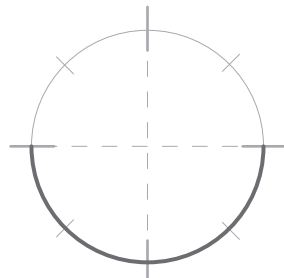
Most common in medical & veterinary							
45cm	50cm	60cm	75cm	90cm	100cm	150cm	180cm
Most common in dental							

## Needle Shape



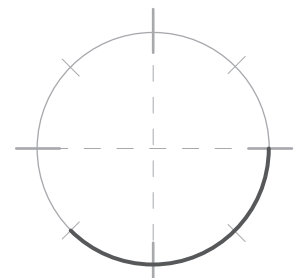
1/4 Circle

Eye  
Microsurgery



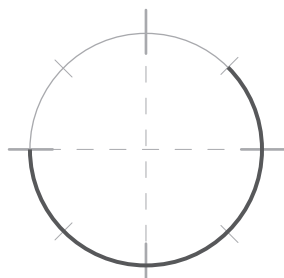
1/2 Circle

Muscle  
Eye, Oral  
Skin  
Peritoneum



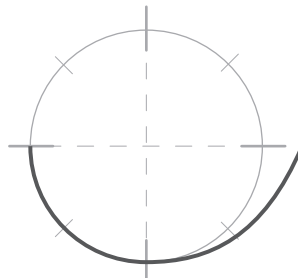
3/8 Circle

Dura  
Oral  
Fascia  
Nerve



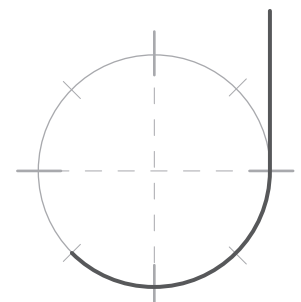
5/8 Circle

Cardiovascular  
Oral  
Pelvis  
Urogenital tract



Compound curve

Eye (Anterior segment)



J shape

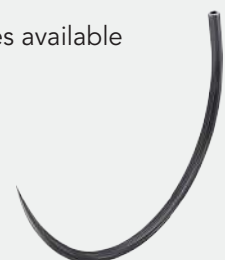
Laparoscopy



J shape

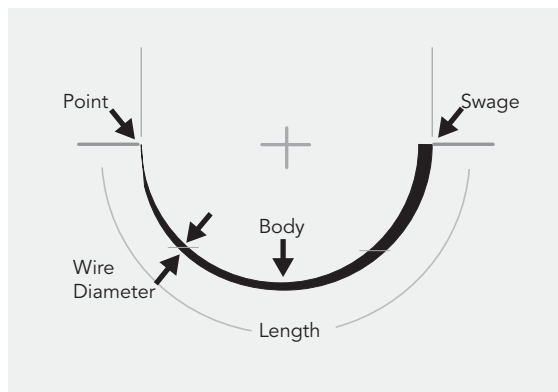
Nerve Skin Tendon

Black Needles available



# Threads & Needle technical data

## Needle shape



**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 Point Types

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		Indicated for hard tissue, extra sharp 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

## Needle details

Needle Size:

Most common in medical & veterinary												
8 mm	10 mm	12 mm	16 mm	19 mm	22 mm	24 mm	26 mm	30 mm	36 mm	40 mm	45 mm	50 mm
most common in dental												

Needle Type:

3/8:	reverse cutting	round bodied	Taper Cut	dental medical and veterinary
1/2:	reverse cutting	round bodied	Taper Cut	
Straight:	reverse cutting	round bodied	Taper Cut	

# PGA SUTURES

## MULTIFILAMENT - ABSORBABLE SYNTHETICS - VIOLET - COATED

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.



<b>Material</b>	Polyglycolic acid   Synthetic   Braided   Violet
<b>Thread diameter</b>	from 4 to 7/0 (USP classification)
<b>Tensile Strength</b>	65% in the 2 <sup>nd</sup> week - 35% in the 3 <sup>rd</sup> week
<b>Absorption</b>	50 -90 days

### 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	▼	24 mm	3/8 circle	55 cm	<a href="#">32.Z6500.00</a>	24
3/0	Reverse Cutting	▼	26 mm	3/8 circle	55 cm	<a href="#">32.Z6501.00</a>	24
3/0	Round body	⊙	20 mm	1/2 circle	55 cm	<a href="#">32.Z6502.00</a>	24
4/0	Reverse Cutting	▼	24 mm	3/8 circle	55 cm	<a href="#">32.Z6503.00</a>	24
4/0	Reverse Cutting	▼	26 mm	3/8 circle	55 cm	<a href="#">32.Z6504.00</a>	24
4/0	Round body	⊙	12 mm	1/2 circle	55 cm	<a href="#">32.Z6505.00</a>	24
4/0	Round body	⊙	26 mm	1/2 circle	55 cm	<a href="#">32.Z6506.00</a>	24
5/0	Round body	⊙	12 mm	1/2 circle	55 cm	<a href="#">32.Z6507.00</a>	24
5/0	Round body	⊙	17 mm	1/2 circle	55 cm	<a href="#">32.Z6508.00</a>	24
3/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6509.00</a>	24
3/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6510.00</a>	24
3/0	Round body	⊙	17 mm	1/2 circle	55 cm	<a href="#">32.Z6511.00</a>	24
3/0	Round body	⊙	22 mm	1/2 circle	55 cm	<a href="#">32.Z6512.00</a>	24
3/0	Round body	⊙	26 mm	1/2 circle	55 cm	<a href="#">32.Z6513.00</a>	24
4/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6514.00</a>	24
4/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6515.00</a>	24
4/0	Round body	⊙	17 mm	1/2 circle	55 cm	<a href="#">32.Z6516.00</a>	24
4/0	Round body	⊙	20 mm	1/2 circle	55 cm	<a href="#">32.Z6517.00</a>	24
4/0	Round body	⊙	22 mm	1/2 circle	55 cm	<a href="#">32.Z6518.00</a>	24
5/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6519.00</a>	24
5/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6520.00</a>	24
5/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6521.00</a>	24
6/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6522.00</a>	24
6/0	Reverse Cutting	▼	10 mm	3/8 circle	55 cm	<a href="#">32.Z6523.00</a>	24

# PGLA SUTURES

## MULTIFILAMENT - ABSORBABLE SYNTHETICS - VIOLET - COATED

PGLA Synthetic Absorbable Surgical Suture elicits a minimal acute inflammatory reaction in tissues, which is followed by gradual encapsulation of the suture by fibrous connective tissue. Progressive loss of tensile strength and eventual absorption of PGLA Synthetic Absorbable Surgical Suture occurs by means of hydrolysis, where the polymer degrades to glycolic and lactic acids which are subsequently absorbed and metabolized in the body. Absorption begins as a loss of tensile strength without appreciable loss of mass. **PGLA retains approximately 50% of the average E.P. tensile strength requirement at the end of the 3rd post implantation week. The absorption of the suture is essentially complete between 56-70 days.**



<b>Material</b>	Composed of a copolymer made from 90% glycolide and 10% L-lactide. PGLA suture is provided coated with Poly(glycolide-co-lactide) (30/70) + calcium stearate.
<b>Thread diameter</b>	from 2 to 7/0 (USP classification)
<b>Tensile Strength</b>	50% in the 3rd week
<b>Absorption</b>	56 -70 days

### Characteristics:

excellent tissue support, minimal tissue reaction, high flexibility, excellent knot security

### 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	▼	24 mm	3/8 circle	55 cm	<a href="#">32.Z6600.00</a>	24
3/0	Reverse Cutting	▼	26 mm	3/8 circle	55 cm	<a href="#">32.Z6601.00</a>	24
3/0	Round body	⊙	20 mm	1/2 circle	55 cm	<a href="#">32.Z6602.00</a>	24
4/0	Reverse Cutting	▼	24 mm	3/8 circle	55 cm	<a href="#">32.Z6603.00</a>	24
4/0	Reverse Cutting	▼	26 mm	3/8 circle	55 cm	<a href="#">32.Z6604.00</a>	24
4/0	Round body	⊙	12 mm	1/2 circle	55 cm	<a href="#">32.Z6605.00</a>	24
4/0	Round body	⊙	26 mm	1/2 circle	55 cm	<a href="#">32.Z6606.00</a>	24
5/0	Round body	⊙	12 mm	1/2 circle	55 cm	<a href="#">32.Z6607.00</a>	24
5/0	Round body	⊙	17 mm	1/2 circle	55 cm	<a href="#">32.Z6608.00</a>	24
6/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6609.00</a>	24
6/0	Reverse Cutting	▼	10 mm	3/8 circle	55 cm	<a href="#">32.Z6610.00</a>	24
3/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6611.00</a>	24
3/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6612.00</a>	24
3/0	Round body	⊙	17 mm	1/2 circle	55 cm	<a href="#">32.Z6613.00</a>	24
3/0	Round body	⊙	22 mm	1/2 circle	55 cm	<a href="#">32.Z6614.00</a>	24
3/0	Round body	⊙	26 mm	1/2 circle	55 cm	<a href="#">32.Z6615.00</a>	24
4/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6616.00</a>	24
4/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6617.00</a>	24
4/0	Round body	⊙	17 mm	1/2 circle	55 cm	<a href="#">32.Z6618.00</a>	24
4/0	Round body	⊙	20 mm	1/2 circle	55 cm	<a href="#">32.Z6619.00</a>	24
4/0	Round body	⊙	22 mm	1/2 circle	55 cm	<a href="#">32.Z6620.00</a>	24
5/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6621.00</a>	24
5/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6622.00</a>	24
5/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6623.00</a>	24

# PGLA RAPID SUTURES

MULTIFILAMENT - ABSORBABLE SYNTHETICS - UNDYED - COATED

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.



<b>Material</b>	Polyglactin 910   Synthetic   Braided   Undyed
<b>Thread diameter</b>	from 2 to 6/0 (USP classification)
<b>Tensile Strength</b>	50% in the 5th day
<b>Absorption</b>	42 days

## Characteristics:

- 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
3/0	Reverse Cutting	▼	24 mm	3/8 circle	55 cm	<a href="#">32.Z6700.00</a>	24
3/0	Reverse Cutting	▼	23 mm	1/2 circle	55 cm	<a href="#">32.Z6701.00</a>	24
3/0	Round	⊙	20 mm	1/2 circle	55 cm	<a href="#">32.Z6702.00</a>	24
3/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6703.00</a>	24
3/0	Reverse Cutting	▼	18 mm	1/2 circle	55 cm	<a href="#">32.Z6704.00</a>	24
3/0	Round	⊙	22 mm	1/2 circle	55 cm	<a href="#">32.Z6705.00</a>	24
3/0	Round	⊙	26 mm	1/2 circle	55 cm	<a href="#">32.Z6706.00</a>	24
4/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6707.00</a>	24
4/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6708.00</a>	24
4/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6709.00</a>	24
4/0	Reverse Cutting	▼	17 mm	1/2 circle	55 cm	<a href="#">32.Z6710.00</a>	24
4/0	Round	⊙	20 mm	1/2 circle	55 cm	<a href="#">32.Z6711.00</a>	24
4/0	Round	⊙	22 mm	1/2 circle	55 cm	<a href="#">32.Z6712.00</a>	24
5/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6713.00</a>	24
5/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6714.00</a>	24

# 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 into a dipeic acid which is subsequently absorbed and metabolized by the tissues. Absorption begins as loss of tensile strength without 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.



<b>Material</b>	Polyglycolic acid & polycaprolactone co-polymer PGA-PCL (75/25)
<b>Thread diameter</b>	from 2 to 6/0 (USP classification)
<b>Tensile Strength</b>	68% - 78% in the 1st week - 30% in the 2nd week & Total lost in 28 days
<b>Absorption</b>	90-110 days

### Characteristics:

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

### Application:

- Flaps
- Regeneration
- Implants
- Mucogingival Surgery
- Oral Surgery

Thread size	Needle type	Point type	Needle length	Needle curving	Wire length	Code	Pcs./box
3/0	Reverse Cutting	▼	24 mm	3/8 circle	55 cm	<a href="#">32.Z6800.00</a>	24
3/0	Reverse Cutting	▼	26 mm	3/8 circle	55 cm	<a href="#">32.Z6801.00</a>	24
5/0	Round	⊙	12 mm	1/2 circle	55 cm	<a href="#">32.Z6802.00</a>	24
3/0	Round	⊙	22 mm	1/2 circle	55 cm	<a href="#">32.Z6803.00</a>	24
3/0	Round	⊙	26 mm	1/2 circle	55 cm	<a href="#">32.Z6804.00</a>	24
4/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6805.00</a>	24
4/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6806.00</a>	24
4/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6807.00</a>	24
4/0	Round	⊙	17 mm	1/2 circle	55 cm	<a href="#">32.Z6808.00</a>	24
4/0	Round	⊙	20 mm	1/2 circle	55 cm	<a href="#">32.Z6809.00</a>	24
4/0	Round	⊙	22 mm	1/2 circle	55 cm	<a href="#">32.Z6810.00</a>	24
5/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6811.00</a>	24
5/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6812.00</a>	24

# PDO SUTURES

## MONOFILAMENT - ABSORBABLE SYNTHETICS - VIOLET - COATED

PDO Surgical Suture is a sterile synthetic absorbable monofilament suture composed from polyester poly (p-dioxanone). The implantation of the PDO monofilament synthetic absorbable surgical suture elicits a minimal inflammatory reaction, which is followed by the development of fibrous connective tissue in place. Progressive loss of tensile strength and eventual absorption of the suture occurs by means of hydrolysis, where the polymer degrades to carbon dioxide and water which are subsequently absorbed and metabolized by the tissues. Absorption begins as a loss of tensile strength without appreciable loss of mass. **The retention of PDO absorbable surgical suture is 65-70% of the original tensile strength after 4 weeks and 50-60% after 6 weeks. The absorption of the suture is essentially completed after a period of 180 - 220 days**



<b>Material</b>	Polyester poly (p-dioxanone) PDO  Synthetic Monofilament Violet
<b>Thread diameter</b>	from 2 to 7/0 (USP classification)
<b>Tensile Strength</b>	65% - 70% in the 4th week - 50% - 60% in the 6th week
<b>Absorption</b>	180 - 220 days

### Characteristics:

extremely manageable and smooth, easier passage through tissue, decreased tissue reactivity, decreased risk of wound infection

### Application:

Flaps, Oral Surgery, General Surgery

Thread size	Needle type	Point type	Needle length	Needle curving	Wire length	Code	Pcs./box
3/0	Reverse Cutting	▼	24 mm	3/8 circle	55 cm	32.Z6900.00	24
3/0	Reverse Cutting	▼	26 mm	1/2 circle	55 cm	32.Z6901.00	24
3/0	Round	⊙	20 mm	1/2 circle	55 cm	32.Z6902.00	24
4/0	Reverse Cutting	▼	24 mm	3/8 circle	55 cm	32.Z6903.00	24
4/0	Round	⊙	12 mm	1/2 circle	55 cm	32.Z6904.00	24
5/0	Round	⊙	12 mm	1/2 circle	55 cm	32.Z6905.00	24
3/0	Round	⊙	22 mm	1/2 circle	55 cm	32.Z6906.00	24
3/0	Round	⊙	26 mm	3/8 circle	55 cm	32.Z6907.00	24
4/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6908.00	24
4/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6909.00	24
4/0	Round	⊙	17 mm	1/2 circle	55 cm	32.Z6910.00	24
4/0	Round	⊙	20 mm	1/2 circle	55 cm	32.Z6911.00	24
4/0	Round	⊙	22 mm	1/2 circle	55 cm	32.Z6912.00	24
5/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	32.Z6913.00	24
5/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6914.00	24
5/0	Round	⊙	17 mm	3/8 circle	55 cm	32.Z6915.00	24



# SILK SUTURES

## MULTIFILAMENT - NON ABSORBABLE NATURAL - BLACK - COATED

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.



<b>Material</b>	100% Beeswax coated Silk   Biological   Braided   Black
<b>Thread diameter</b>	from 4 to 6/0 (USP classification)

### 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
3/0	Round	⊙	17 mm	1/2 circle	55 cm	32.Z6000.00	24
3/0	Round	⊙	22 mm	1/2 circle	55 cm	32.Z6001.00	24
3/0	Round	⊙	24 mm	1/2 circle	55 cm	32.Z6002.00	24
3/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6003.00	24
3/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6004.00	24
3/0	Reverse Cutting	▼	22 mm	3/8 circle	55 cm	32.Z6005.00	24
3/0	Taper Cut	⊕	18 mm	3/8 circle	55 cm	32.Z6006.00	24
3/0	Taper Cut	⊕	17 mm	1/2 circle	55 cm	32.Z6007.00	24
3/0	Taper Cut	⊕	22 mm	1/2 circle	55 cm	32.Z6008.00	24
4/0	Round	⊙	17 mm	1/2 circle	55 cm	32.Z6009.00	24
4/0	Round	⊙	22 mm	1/2 circle	55 cm	32.Z6010.00	24
4/0	Round	⊙	24 mm	1/2 circle	55 cm	32.Z6011.00	24
4/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	32.Z6012.00	24
4/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6013.00	24
4/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6014.00	24
4/0	Reverse Cutting	▼	22 mm	3/8 circle	55 cm	32.Z6015.00	24
4/0	Taper Cut	⊕	18 mm	3/8 circle	55 cm	32.Z6016.00	24
4/0	Taper Cut	⊕	17 mm	1/2 circle	55 cm	32.Z6017.00	24
4/0	Extra Reverse Cutting	▽	16 mm	3/8 circle	55 cm	32.Z6018.00	12
4/0	Extra Reverse Cutting	▽	19 mm	3/8 circle	55 cm	32.Z6019.00	12
5/0	Round	⊙	17 mm	1/2 circle	55 cm	32.Z6020.00	24
5/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	32.Z6021.00	24
5/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6022.00	24
5/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6023.00	24
5/0	Taper Cut	⊕	18 mm	3/8 circle	55 cm	32.Z6024.00	24
5/0	Taper Cut	⊕	12 mm	1/2 circle	55 cm	32.Z6025.00	24
5/0	Extra Reverse Cutting	▽	12 mm	3/8 circle	55 cm	32.Z6026.00	12
5/0	Extra Reverse Cutting	▽	16 mm	3/8 circle	55 cm	32.Z6027.00	12

# POLYESTER SUTURES

MULTIFILAMENT - NON ABSORBABLE SYNTHETIC - GREEN - COATED

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.



**Material** 100% Beeswax coated Polyester | Synthetic | Braided | Green

**Thread diameter** from 4 to 6/0 (USP classification)

## 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	Round	⊙	17 mm	1/2 circle	55 cm	32.Z6100.00	24
3/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6101.00	24
3/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6102.00	24
4/0	Round	⊙	17 mm	1/2 circle	55 cm	32.Z6103.00	24
4/0	Round	⊙	20 mm	1/2 circle	55 cm	32.Z6104.00	24
4/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	32.Z6105.00	24
4/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6106.00	24
4/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6107.00	24
4/0	Taper Cut	⊕	18 mm	3/8 circle	55 cm	32.Z6108.00	24
4/0	Taper Cut	⊕	17 mm	1/2 circle	55 cm	32.Z6109.00	24
5/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6110.00	24

# 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.



**Material** Polyamide (nylon) | Synthetic | Monofilament | light Blue

**Thread diameter** from 3 to 7/0 (USP classification)

### Characteristics:

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

### Application:

- Flaps
- Regeneratory
- Implants
- Mucogengival Surgery
- Oral Surgery

Thread size	Needle type	Point type	Needle length	Needle curving	Wire length	Code	Pcs./box
3/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6200.00	24
3/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6201.00	24
4/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	32.Z6202.00	24
4/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6203.00	24
4/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6204.00	24
5/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	32.Z6205.00	24
5/0	ExtraReverse Cutting	▽	12 mm	3/8 circle	55 cm	32.Z6206.00	24
5/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6207.00	12
5/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6208.00	24
6/0	ExtraReverse Cutting	▽	10 mm	3/8 circle	55 cm	32.Z6209.00	24
6/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	32.Z6210.00	12
6/0	ExtraReverse Cutting	▽	12 mm	3/8 circle	55 cm	32.Z6211.00	24
6/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6212.00	12

# POLYPROPYLENE SUTURES

## MONOFILAMENT - NON ABSORBABLE SYNTHETIC - 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.



**Material** Polypropylene | Synthetic | Monofilament | Blue

**Thread diameter** from 1 to 8/0 (USP classification)

### 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	55 cm	32.Z6400.00	24
4/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6401.00	24
5/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6402.00	24
5/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	32.Z6403.00	24
6/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	32.Z6404.00	24
6/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	32.Z6405.00	24
6/0	ExtraReverse Cutting	▼	12 mm	3/8 circle	55 cm	32.Z6407.00	12

# PTFE SUTURES

## MONOFILAMENT - NON ABSORBABLE SYNTHETIC - UNDYED

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.



<b>Material</b>	PTFE Polytetrafluoroethylene   Monofilament   Undyed
<b>Thread diameter</b>	from 2/0 to 7/0 (USP classification)

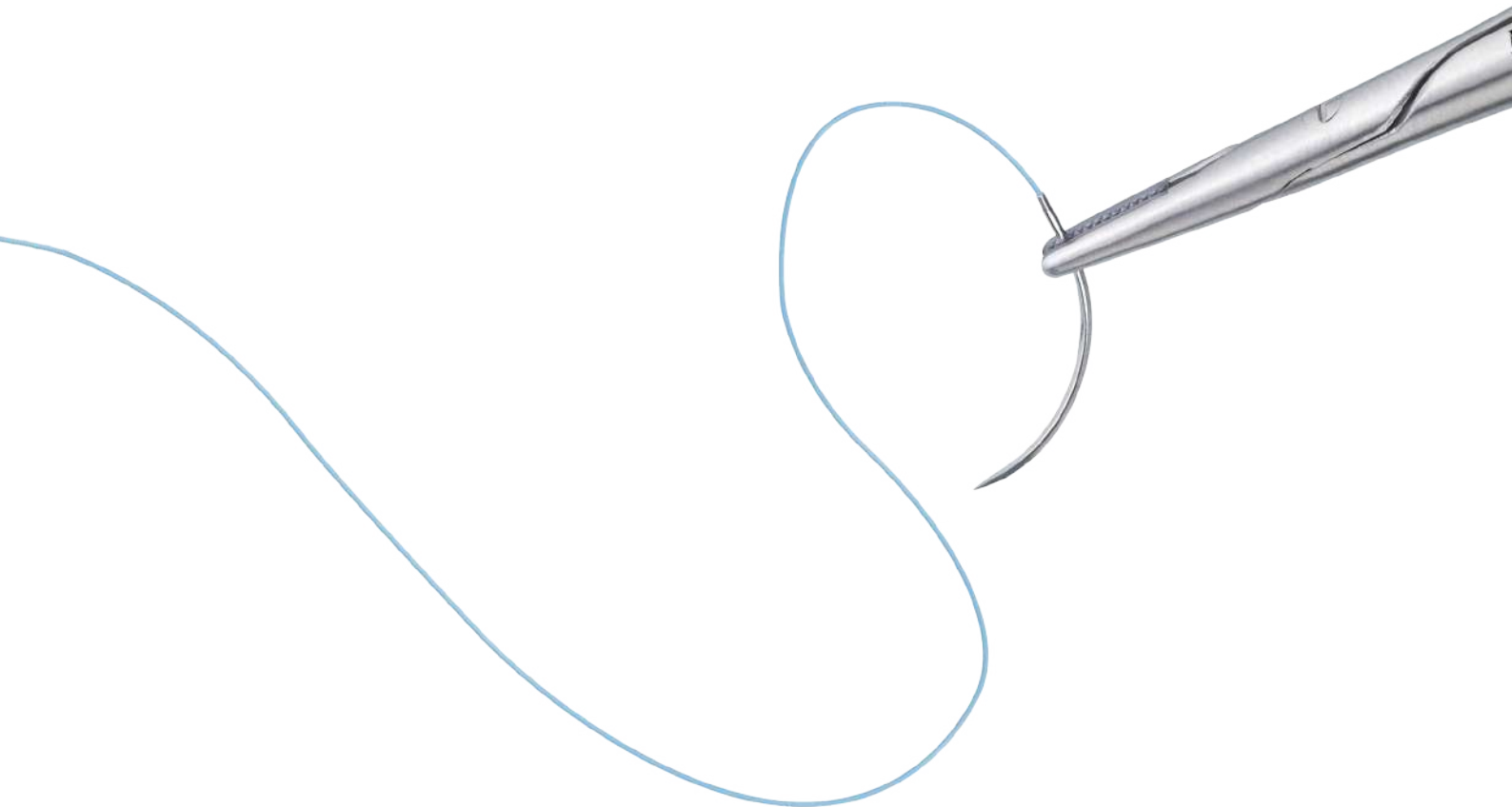
### Characteristics:

- 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
3/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6300.00</a>	12
3/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6301.00</a>	12
4/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6302.00</a>	12
4/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6303.00</a>	12
4/0	Taper Cut	⊕	18 mm	3/8 circle	55 cm	<a href="#">32.Z6304.00</a>	12
5/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6305.00</a>	12
5/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6306.00</a>	12
5/0	Reverse Cutting	▼	19 mm	3/8 circle	55 cm	<a href="#">32.Z6307.00</a>	12
5/0	Extra Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6308.00</a>	12
5/0	Taper Cut	⊕	18 mm	3/8 circle	55 cm	<a href="#">32.Z6309.00</a>	12
6/0	Reverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6310.00</a>	12
6/0	Reverse Cutting	▼	16 mm	3/8 circle	55 cm	<a href="#">32.Z6311.00</a>	12
6/0	ExtraReverse Cutting	▼	12 mm	3/8 circle	55 cm	<a href="#">32.Z6312.00</a>	12
6/0	ExtraReverse Cutting	▼	10 mm	3/8 circle	55 cm	<a href="#">32.Z6313.00</a>	12
6/0	Taper Cut	⊕	10 mm	1/2 circle	55 cm	<a href="#">32.Z6314.00</a>	12
7/0	ExtraReverse Cutting	▼	10 mm	3/8 circle	55 cm	<a href="#">32.Z6315.00</a>	12



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