

Smi

OPHTHALMIC CATALOGUE

*For quality
&
safety*



Smi

www.sutures.be

SMI: Surgical sutures of the highest quality

SMI AG was established in 1987 - the first Belgian company manufacturing surgical sutures - since then it has grown continuously. Today SMI is recognised as a world-wide supplier of quality surgical sutures and medical devices.

The company is situated in St. Vith in the East of Belgium, near the point where the borders of Belgium, Germany and Luxembourg meet.

HIGHEST QUALITY AND SAFETY

SMI complies always with international quality standards such as EN ISO 13485 as well as Good Manufacturing Practices (GMP).

All raw materials and finished products are submitted to stringent quality control by a highly qualified team.

SMI is dedicated to customer satisfaction by ensuring high quality products and an excellent service based on customer focus, reliability and delivery performance.

WORLD-WIDE RECOGNITION

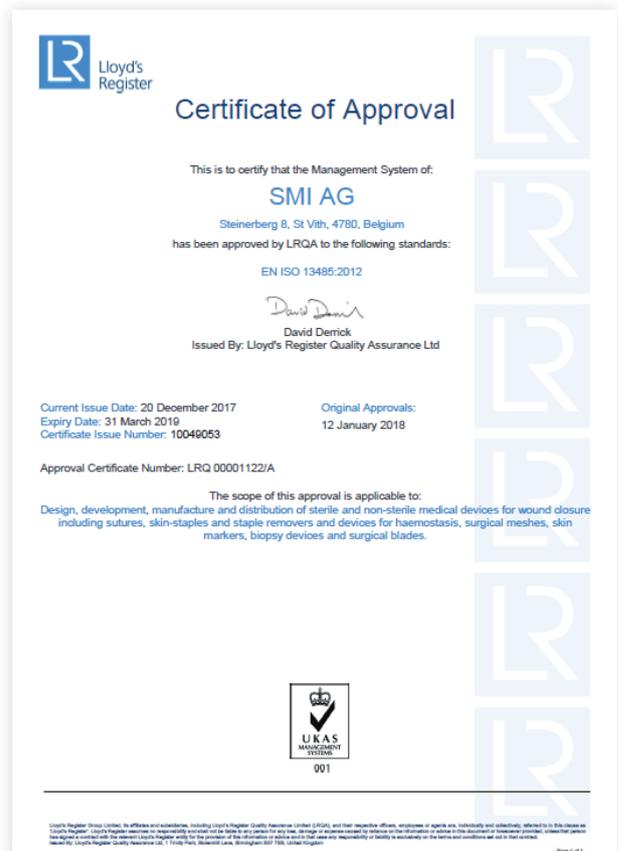
SMI exports to around 120 different countries all over the world. For this performance **SMI** received the "Royal Export Award 2000" from the Belgian Foreign Trade Board.

THE CATALOGUE

This catalogue contains information about the most commonly used **SMI** ophthalmic products. On our Website you will find the full range of **SMI** products. We are constantly striving to increase our product range based on market developments and customer needs.

Since many years **SMI** products are recognized by ophthalmologists around the world.

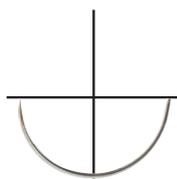




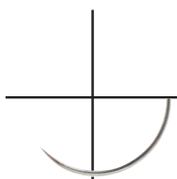
NEEDLE TYPES

SMI surgical needles are manufactured from highest quality stainless steel grades for outstanding performance, combining high ductility and strong bending moment. Advanced silicon coating ensures smooth penetration and reduced tissue trauma. The shape of the needle body is designed in order to allow maximum stability in the needle holder.

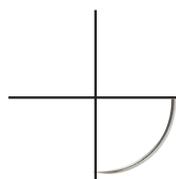
1/2 CIRCLE



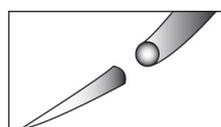
3/8 CIRCLE



1/4 CIRCLE

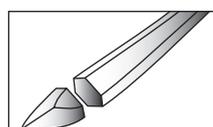


STRAIGHT



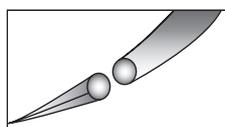
TAPER POINT

A gradual taper to a round bodied needle.



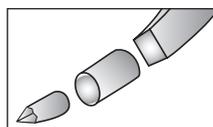
SIDE CUTTING SPATULA NEEDLES

Needle with cutting edges on the two sides.



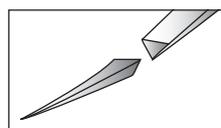
TAPER CUTTING POINT

Balanced, cutting point-tapering into a round bodied needle.



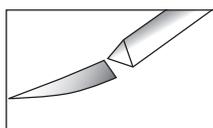
SOFT CUTTING POINT - CORONARY

A minute point followed by a round body and a rectangular main body for better penetration in cardiovascular surgery.



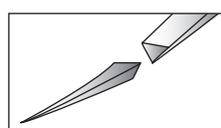
REVERSE CUTTING

A triangular body offers a third cutting edge on the outer convex curvature.



CONVENTIONAL CUTTING

A triangular body offers a third cutting edge on the inside concave curvature.



EASY PASS NEEDLE

Precision point with extra sharpening.





SPATULA NEEDLE

PRODUCT

Side-cutting (spatula) needles are flat on the top and bottom surfaces to reduce tissue injury. These needles allow maximum ease of penetration and control as they pass between and through tissue layers. Side-cutting needles were designed initially for ophthalmic procedures.

The sharp spatula needle cuts the tissue with the needle tip. Therefore, only a marginal tissue damage is caused.

INDICATIONS

Ophthalmic surgery

BENEFITS

- Designed for ophthalmic procedures
- The needle separates or splits through the thin layers of sclera or corneal tissue and travels within the plane between them
- The optimal width, shape, and precision sharpness ensure maximum ease of penetration



Type	Braided and coated multifilament
Composition	Polyglactine 910, a copolymer made of 90% glycolide and 10% L-lactide
Coating	Poly-glycolide-co-L-lactide and calcium stearate (<1%)
Colour	Violet / Beige-undyed
Tissue reaction	Minimal
Absorption	The hydrolytic action by which the material is broken down results in total absorption between 56 and 70 days. Between 40% and 50% of tensile strength remain after 21 days.
Presentation	Box with 12 sutures

CHARACTERISTICS

- High tensile strength
- Synthetic
- Breaks down by hydrolysis
- Braided structure
- Coated multifilament
- Hermetically sealed packing

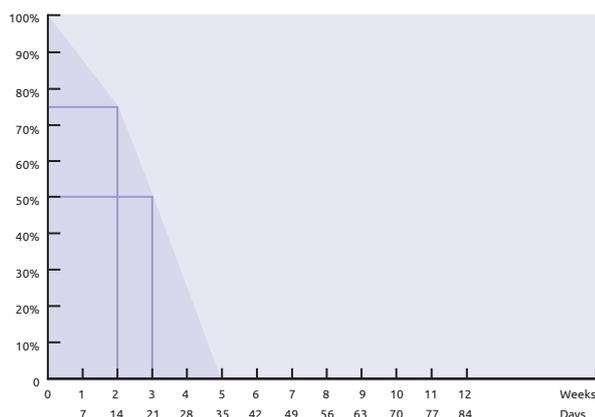
BENEFITS

- Excellent tissue support
- Minimal tissue reaction
- Predictable absorption rate
- Excellent handling properties
High flexibility
High tensile strength
Excellent knot security
- Soft passage through the tissues with minimal sawing, tissue drag and trauma
Good knot tie down / adjustability
Reduced capillary action
- Guaranteed seal and product sterility

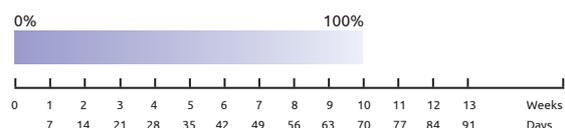
CONTRAINDICATIONS

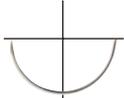
Being absorbable not to use when an extended wound support is required.
Caution in patients with delayed wound healing (e.g. compromised immune system).

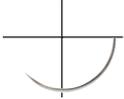
TENSILE STRENGTH

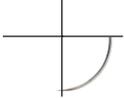


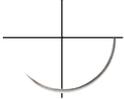
ABSORPTION



Side cutting spatula double armed			Metric	USP	Length	Order number	
1/2 Circle 	2 x HSP 8 mm 200 µm		0.4	8/0	45 cm	<i>violet</i>	O910081
	2 x HSP 8 mm 200 µm		0.5	7/0	45 cm	<i>violet</i>	O91007
	2 x HSP 8 mm 300 µm		0.7	6/0	45 cm	<i>violet</i>	O910061
	2 x HSP 8 mm 300 µm		0.7	6/0	45 cm	<i>undyed</i>	O910061U

Side cutting spatula double armed			Metric	USP	Length	Order number	
3/8 Circle 	2 x DSP 6 mm 200 µm		0.4	8/0	45 cm	<i>violet</i>	O91008
	2 x DSP 6 mm 220 µm		0.5	7/0	45 cm	<i>violet</i>	O910072
	2 x DSP 11 mm 350 µm		1	5/0	45 cm	<i>violet</i>	O910051

Side cutting spatula double armed			Metric	USP	Length	Order number	
1/4 circle 	2 x VSP 8 mm 300 µm		0.7	6/0	45 cm	<i>violet</i>	O91006
			0.7	6/0	20 cm	<i>undyed</i>	O91006U-20
			0.7	6/0	45 cm	<i>undyed</i>	O91006U
	2 x VSP 8 mm 350 µm		1	5/0	45 cm	<i>violet</i>	O91005
			1	5/0	45 cm	<i>undyed</i>	O91005U

Reverse cutting			Metric	USP	Length	Order number	
3/8 Circle 	DS 12 mm		0.7	6/0	45 cm	<i>violet</i>	15071512
			1	5/0	45 cm	<i>violet</i>	15101512



Type	Braided and coated multifilament
Composition	Polyglycolic acid
Coating	Polycaprolactone and calcium stearate (1%)
Colour	Violet / Beige-undyed
Tissue reaction	Minimal
Absorption	The hydrolytic action by which the material is broken down results in total absorption in approximately 60 to 90 days. Approximately 50% of tensile strength remain after 21 days.
Presentation	Box with 12 sutures

CHARACTERISTICS

- High tensile strength
- Synthetic
- Breaks down by hydrolysis
- Braided structure
- Coated multifilament
- Hermetically sealed packing

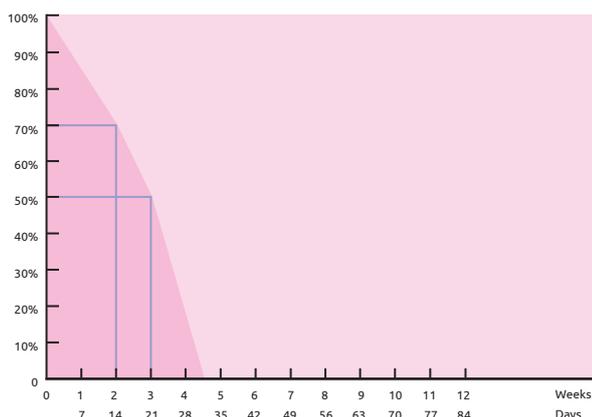
BENEFITS

- Excellent tissue support
- Minimal tissue reaction
- Predictable absorption rate
- Excellent handling properties
High flexibility
High tensile strength
Excellent knot security
- Soft passage through the tissues with minimal sawing, tissue drag and trauma
Good knot tie down / adjustability
Reduced capillary action
- Guaranteed seal and product sterility

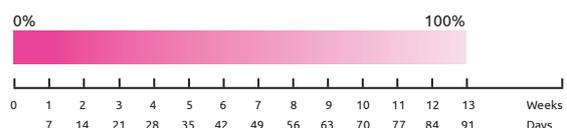
CONTRAINDICATIONS

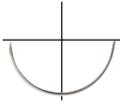
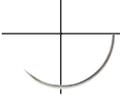
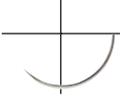
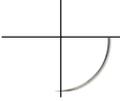
Being absorbable not to use when an extended wound support is required.
Caution in patients with delayed wound healing (e.g. compromised immune system).

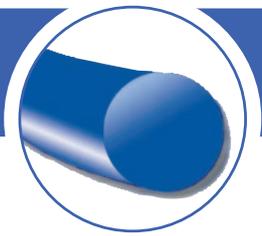
TENSILE STRENGTH



ABSORPTION



Side cutting spatula double armed			Metric	USP	Length		Order number
1/2 circle 	2 x HSP 8 mm 200 µm		0.5	7/0	45 cm	<i>violet</i>	OSU07
Side cutting spatula double armed			Metric	USP	Length		Order number
3/8 circle 	2 x DSP 6 mm 200 µm		0.4	8/0	30 cm	<i>violet</i>	OSU08-30
			0.4	8/0	45 cm	<i>violet</i>	OSU08
	2 x DSP 6,2 mm 150 µm		0.2	10/0	30 cm	<i>violet</i>	OSU10
	2 x DSP 6,4 mm 200 µm		0.3	9/0	30 cm	<i>violet</i>	OSU09
			0.5	7/0	45 cm	<i>violet</i>	OSU072
	2 x DSP 8 mm 200 µm		0.5	7/0	45 cm	<i>violet</i>	OSU071
Side cutting spatula			Metric	USP	Length		Order number
3/8 circle 	DSP 6,2 mm 150 µm		0.2	10/0	10 cm	<i>violet</i>	OSU101
	DSP 6,4 mm 200 µm		0.3	9/0	30 cm	<i>violet</i>	OSU09-1
Side cutting spatula double armed			Metric	USP	Length		Order number
1/4 circle 	2 x VSP 8 mm 300 µm		0.7	6/0	45 cm	<i>violet</i>	OSU06
	350 µm		1	5/0	45 cm	<i>violet</i>	OSU05
Reverse cutting			Metric	USP	Length		Order number
3/8 circle 	DS 12 mm		0.7	6/0	45 cm	<i>violet</i>	11071512
			1	5/0	45 cm	<i>violet</i>	11101512
	DS 12 mm Easy Pass		0.7	6/0	50 cm	<i>undyed</i>	11071512UP
			1	5/0	50 cm	<i>undyed</i>	11101512UP



POLYPROPYLENE

BLUE

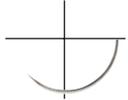
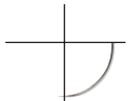
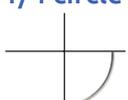
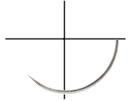
Type	Monofilament
Composition	Polypropylene, a polymer of propylene
Coating	None
Colour	Blue
Tissue reaction	Minimal
Absorption	Non absorbable
Presentation	Box with 12 sutures

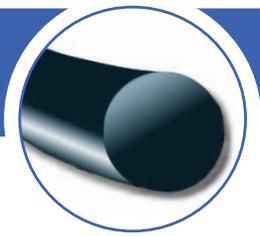
CHARACTERISTICS

- High tensile strength, non absorbable
- Resistance to repeated bending
- Synthetic
- Monofilament with microscopic uniform diameter
- Pliability and softness
- Hermetically sealed packing

BENEFITS

- Excellent and permanent tissue support
- Use in cardiovascular surgery (heart prosthesis or vascular anastomosis)
- Minimal tissue reaction
- Soft passage through the tissues with minimal sawing, tissue drag and trauma
Absence of capillarity (no support of bacterial growth)
Excellent knot tie down
- Good handling properties
Easy and secure knotting
- Guaranteed seal and product sterility

Side cutting spatula double armed			Metric	USP	Length		Order number
3/8 Circle 	2 x DSP 6,4 mm 200 µm		0.2	10/0	30 cm	<i>blue</i>	OPP105
			0.3	9/0	30 cm	<i>blue</i>	OPP95
Side cutting spatula			Metric	USP	Length		Order number
1/4 circle 	VSP 16 mm 150 µm		0.2	10/0	10 cm	<i>blue</i>	OPP103
Side cutting spatula loop			Metric	USP	Length		Order number
1/4 circle 	VSP 16 mm 150 µm		0.2	10/0	10 cm	<i>blue</i>	OPP103L
Side cutting spatula double armed			Metric	USP	Length		Order number
Straight 	2 x GSP 16,15 mm 150 µm		0.2	10/0	20 cm	<i>blue</i>	OPP101
			0.3	9/0	20 cm	<i>blue</i>	OPP91
Side cutting spatula loop			Metric	USP	Length		Order number
Straight 	GSP 16,15 mm 150 µm		0.2	10/0	15 cm	<i>blue</i>	OPP110
Side cutting spatula double armed			Metric	USP	Length		Order number
Straight 	GSP 16 mm 150 µm DSP 4 mm 100 µm		0.2	10/0	10 cm	<i>blue</i>	OPP102
3/8 Circle 							



Type	Monofilament
Composition	Extrusion of polyamide 6.0 or 6.6
Coating	None
Colour	Black
Tissue reaction	Minimal
Absorption	Non absorbable, gradually encapsulated by connective tissue. The thread mass diminishes, approximately 10% a year by rupture of chemical links (hydrolytic action).
Presentation	Box with 12 sutures

CHARACTERISTICS

- High tensile strength, non absorbable
- Synthetic
- Monofilament with microscopic uniform diameter
- Pliability and softness
- Hermetically sealed packing

BENEFITS

- Excellent and permanent tissue support
- Minimal tissue reaction
- Soft passage through the tissues with minimal sawing, tissue drag and trauma
Absence of capillarity (no support of bacterial growth)
Excellent knot tie down
- Good handling properties
Easy and secure knotting
- Guaranteed seal and product sterility

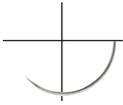
Side cutting spatula double armed



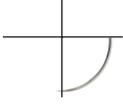
1/2 circle

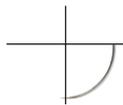


			Metric	USP	Length		Order number
	2 x HSP 6,2 mm 150 µm		0.2	10/0	30 cm	<i>black</i>	ON102
	2 x HSP 6,4 mm 220 µm		0.2	10/0	30 cm	<i>black</i>	ON106
	2 x HSP 8 mm 300 µm		0.7	6/0	45 cm	<i>black</i>	ON62

Side cutting spatula double armed			Metric	USP	Length	Order number	
3/8 circle 	2 x DSP 6 mm 220 µm		0.2	10/0	30 cm	<i>black</i>	ON103
			0.1	11/0	20 cm	<i>black</i>	ON111
			0.2	10/0	30 cm	<i>black</i>	ON101
	2 x DSP 6,2 mm 150 µm		0.3	9/0	30 cm	<i>black</i>	ON95
			0.3	9/0	45 cm	<i>black</i>	ON95-45
			0.4	8/0	30 cm	<i>black</i>	ON85
			0.4	8/0	45 cm	<i>black</i>	ON85-45
	2 x DSP 6,2 mm 200 µm		0.5	7/0	30 cm	<i>black</i>	ON75
	2 x DSP 6,4 mm 220 µm		0.2	10/0	30 cm	<i>black</i>	ON105
			0.2	10/0	38 cm	<i>black</i>	ON105-38
		0.2	10/0	45 cm	<i>black</i>	ON105-45	
2 x DSP 8 mm 300 µm		0.7	6/0	45 cm	<i>black</i>	ON61	

Side cutting spatula			Metric	USP	Length	Order number	
3/8 circle 	DSP 6,2 mm 150 µm		0.2	10/0	15 cm	<i>black</i>	ON1011

Side cutting spatula double armed			Metric	USP	Length	Order number	
1/4 circle 	2 x VSP 8 mm 350 µm		1	5/0	45 cm	<i>black</i>	ON51

Round bodied taper point double armed			Metric	USP	Length	Order number	
1/4 circle 	2 x VR 8 mm 220 µm		0.4	8/0	45 cm	<i>black</i>	ON81

Reverse cutting			Metric	USP	Length	Order number	
3/8 circle 	DS 12 mm		0.5	7/0	75 cm	<i>black</i>	9051512
			0.7	6/0	75 cm	<i>black</i>	9071512



POLYESTER

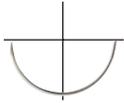
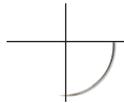
Type	Braided multifilament
Composition	Polyester - a polymer of polyethylene terephthalate
Coating	Silicone
Colour	White
Tissue reaction	Minimal
Absorption	Non absorbable, gradually encapsulated by connective tissue
Presentation	Box with 12 sutures

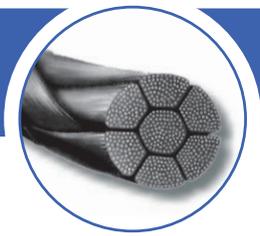
CHARACTERISTICS

- Unsurpassed tensile strength, non absorbable
- Resistance to repeated bending
- Synthetic
- Braided structure
- Coated multifilament
- Hermetically sealed packing

BENEFITS

- Excellent and permanent tissue support
- Use in cardiovascular surgery (heart prosthesis)
- Minimal tissue reaction
- Excellent handling properties
High flexibility
High tensile strength
Excellent knot security
- Soft passage through the tissues with minimal sawing, tissue drag and trauma
Good knot tie down / adjustability
Reduced capillary action
- Guaranteed seal and product sterility

Side cutting spatula double armed			Metric	USP	Length		Order number					
1/2 Circle 	2 x HSP 8 mm		1	5/0	45 cm	<i>white</i>	OP52					
	350 µm											
Side cutting spatula double armed			Metric	USP	Length		Order number					
3/8 Circle 	2 x DSP 8 mm		1	5/0	45 cm	<i>white</i>	OP53					
	350 µm											
Side cutting spatula double armed			Metric	USP	Length		Order number					
1/4 Circle 	2 x VSP 8 mm		0.5	7/0	45 cm	<i>white</i>	OP71					
	250 µm											
	2 x VSP 8 mm							0.7	6/0	45 cm	<i>white</i>	OP61
	300 µm											
2 x VSP 8 mm	1	5/0	45 cm	<i>white</i>	OP51							
350 µm												
	2 x VSP 8 mm		1.5	4/0	45 cm	<i>white</i>	OP41					
	350 µm											



Type	Braided multifilament
Composition	Braided fibres from the cocoon of the silkworm
Coating	Silicone
Colour	Black
Tissue reaction	Moderate
Absorption	Silk suture elicits an initial inflammatory reaction in tissues, which is followed by gradual encapsulation of the suture by fibrous connective tissues.
Presentation	Box with 12 sutures

CHARACTERISTICS

- High tensile strength, non absorbable
- Braided structure
- Coated multifilament
- Hermetically sealed packing

BENEFITS

- Excellent and permanent tissue support for up to 3 month
- Excellent handling properties
 - High flexibility
 - High tensile strength
 - Excellent knot security
- Soft passage through the tissues with minimal sawing, tissue drag and trauma
 - Good knot tie down / adjustability
 - Reduced capillary action
- Guaranteed seal and product sterility

CONTRAINDICATIONS

Known allergies or sensitivities to silk

**Side cutting spatula
double armed**



			Metric	USP	Length		Order number
3/8 circle 	2 x DSP 6,5 mm 200 µm		0.4	8/0	45 cm	<i>black</i>	OS81B
	2 x DSP 6,5 mm 240 µm		0.5 0.7	7/0 6/0	45 cm 45 cm	<i>black</i> <i>black</i>	OS71 OS61
	2 x DSP 8 mm 350 µm		1	5/0	30 cm	<i>black</i>	OS52

**Side cutting spatula
double armed**



			Metric	USP	Length		Order number
1/4 circle 	2 x VSP 8 mm 250 µm		0.7	6/0	45 cm	<i>black</i>	OS62
	2 x VSP 10 mm 350 µm		1	5/0	45 cm	<i>black</i>	OS51

Reverse cutting

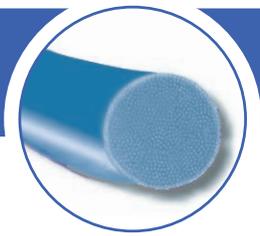


			Metric	USP	Length		Order number
3/8 circle 	DS 12 mm		0.7	6/0	45 cm	<i>black</i>	8071512
			1	5/0	45 cm	<i>black</i>	8101512
			1.5	4/0	75 cm	<i>black</i>	8151512
	DS 16 mm		1.5	4/0	75 cm	<i>black</i>	8151516
	DS 19 mm		1.5	4/0	75 cm	<i>black</i>	8151519

**Reverse cutting
double armed**



			Metric	USP	Length		Order number
3/8 Circle 	2 x DS 12 mm		0.5	7/0	45 cm	<i>black</i>	8051512-2
			0.7	6/0	45 cm	<i>black</i>	8071512-2



Type	Twisted multifilament
Composition	Twisted fibres from the cocoon of the silkworm
Coating	None
Colour	Blue
Tissue reaction	Moderate
Absorption	Silk suture elicits an initial inflammatory reaction in tissues, which is followed by gradual encapsulation of the suture by fibrous connective tissues.
Presentation	Box with 12 sutures

CHARACTERISTICS

- High tensile strength, non absorbable
- Braided structure
- Coated multifilament
- Hermetically sealed packing

BENEFITS

- Excellent and permanent tissue support for up to 3 month
- Excellent handling properties
High flexibility
High tensile strength
Excellent knot security
- Soft passage through the tissues with minimal sawing, tissue drag and trauma
Good knot tie down / adjustability
Reduced capillary action
- Guaranteed seal and product sterility

CONTRAINDICATIONS

Known allergies or sensitivities to silk

Side cutting spatula
double armed



Metric

USP

Length

Order number

3/8 circle



2 x DSP 6,5 mm
200 µm



0.4

8/0

45 cm

blue

OS81

SUTURE MATERIALS

ABSORBABLE SUTURES



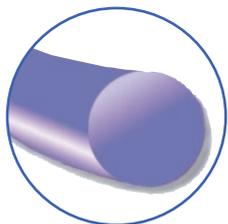
SURGICRYL®
910
POLYGLACTINE



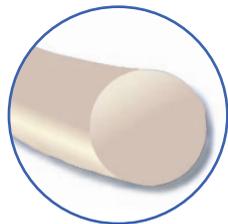
SURGICRYL®
PGA
POLYGLYCOLIC ACID



SURGICRYL®
RAPID
POLYGLYCOLIC ACID

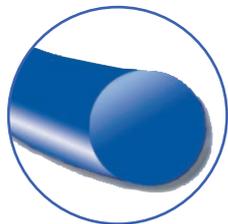


SURGICRYL®
MONOFILAMENT
POLYDIOXANONE



SURGICRYL®
MONOFAST
POLYGLICAPRONE 25

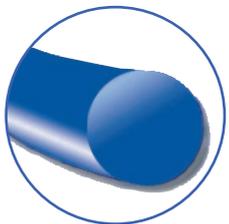
NON-ABSORBABLE SUTURES



POLYPROPYLENE
BLUE



POLYESTER



DACLON
NYLON
BLUE



SILK
BRAIDED
BLACK



SUPRAMID
BLACK



DACLON
NYLON
BLACK

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