

**doğsan**



# ABSORBABLE SUTURES

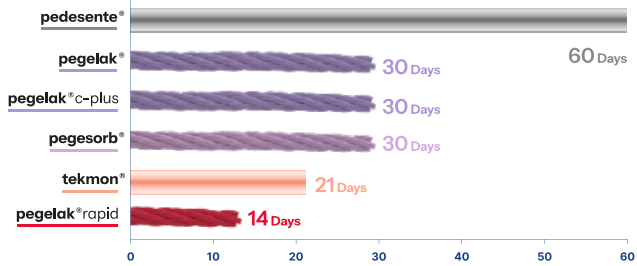
Doğsan absorbable sutures are made from synthetic polymers with a predictable absorption profile. They are available in both monofilament and braided (multifilament) forms. The braided sutures are coated to ensure smooth passage through tissue and enhanced glide. With varying durations of tissue support, Doğsan's absorbable sutures offer surgeons the most suitable options for every application.



POLYMER TYPE	Polyglycolic acid (90%)-co-L-lactid acid(10%), PGLA(glycolide and L-lactide (90:10) copolymer)		
FILAMENT TYPE	Braided (multifilament)	Braided (multifilament)	Braided (multifilament)
COATING MATERIAL	Poly (Glycolide-co-L-lactide) & calcium stearate	Poly (Glycolide-co-L-lactide) & calcium stearate	Poly (Glycolide-co-L-lactide) & calcium stearate & chlorhexidine diacetate
COLOR & USP RANGE	Violet/Undyed, 7/0-2	Undyed, 6/0-2	Violet/Undyed, 6/0-2
WOUND SUPPORT TIME	30 days	14 days	30 days
ABSORPTION PROFILE	Approximately 56-70 days	Approximately 40-45 days	Approximately 56-70 days
CHARACTERISTICS	High tensile strength, excellent knot security, ease of use, smooth tissue passage, easy knotting and tie down.	Quick absorption , excellent knot security, ease of use, smooth tissue passage, easy knotting and tie down.	High tensile strength, excellent knot security, ease of use, smooth tissue passage, easy knotting and tie down.

# ABSORBABLE SUTURES

## Wound Support Time



\*Data is intended as guidance only.



POLYMER TYPE	Polyglycolic acid, PGA 100%	Poly[glycolide (75%)-co-caprolactone (25%)] PGCL	Polydioxanone, PDO 100%
FILAMENT TYPE	Braided (multifilament)	Monofilament	Monofilament
COATING MATERIAL	Poly (Glycolide-co-L-lactide) & calcium stearate	-	-
COLOR & USP RANGE	Violet/Undyed, 8/0-2	Violet/Undyed, 6/0-2	Violet/Undyed, 7/0-2
WOUND SUPPORT TIME	30 days	21 days	60 days
ABSORPTION PROFILE	Approximately 60-90 days	Approximately 90-120 days	Approximately 180-210 days
CHARACTERISTICS	High tensile strength, excellent knot security, ease of use, smooth tissue passage, easy knotting and tie down.	High tensile strength, ideal smoothness of monofilament, ease of use, easy knotting and tie down, high pliability.	Long term wound support, ideal smoothness, ideal suture for loop technique, high tensile strength.



# NON-ABSORBABLE SUTURES

## MONOFILAMENT

Doğsan non-absorbable sutures are available in both monofilament and braided (multifilament) forms. The braided sutures are coated to reduce capillarity and enhance smoothness. Doğsan's non-absorbable sutures are safely used across all surgical fields, especially in cardiovascular and plastic surgery.



POLYMER TYPE	Polypropylene	Polytetrafluorethylene (PTFE)	Polyamide 66
FILAMENT TYPE	Monofilament	Monofilament	Monofilament
COATING MATERIAL	-	-	-
COLOR & USP RANGE	Blue/Undyed, 10/0-2	Undyed, 7/0-2	Blue, 6/0-2 Black, 11/0-8/0
CHARACTERISTICS	High tensile strength, excellent knot security, ease of use, smooth tissue passage, easy knotting and tie down.	High needle-thread compatibility, excellent tensile strength, excellent knot tie down, minimum tissue reaction, ease of use, ideal pliability.	High tensile strength, excellent knot security, ease of use, smooth tissue passage, easy knotting and tie down.



# NON-ABSORBABLE SUTURES

## MULTIFILAMENT



POLYMER TYPE	Natural Silk	Polyethylene terephthalate (polyester)
FILAMENT TYPE	Braided (multifilament)	Braided (multifilament)
COATING MATERIAL	Silicon based	Silicon based
COLOR & USP RANGE	Black, 7/0-3 Blue, 8/0 (virgin)	Green/Undyed, 6/0-5
CHARACTERISTICS	High tensile strength, excellent knot security, ease of use, smooth tissue passage, excellent knot tie down.	Excellent tensile strength, excellent knot security, secure knot positioning, excellent ease of use.

# CARDIOVASCULAR PRODUCTS

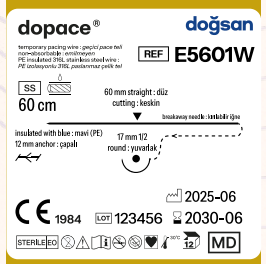
With specially designed needles developed by Doğsan, PTFE sutures, alongside non-absorbable monofilament Propilen sutures, are safely used in vascular and cardiovascular anastomoses. For heart valve repair and replacement, PTFE pledgeted Politer, Tektel for sternum closure, and Dopace temporary pacing wires complete Doğsan's comprehensive cardiovascular product range.



POLYMER TYPE	Polypropylene	Polytetrafluorethylene (PTFE)	Polytetrafluorethylene (e-PTFE)
FILAMENT TYPE	Monofilament	Monofilament	Monofilament, expanded micro porous structure
COATING MATERIAL	-	-	-
COLOR & USP RANGE	Blue/Undyed, 10/0-2	Undyed, 7/0-2	Undyed, KD7-KD1
CHARACTERISTICS	High tensile strength, excellent knot security, ease of use, soft passage through tissues, easy knotting and tie down.	High needle-thread compatibility, excellent tensile strength, excellent knot tie down, minimum tissue reaction, ease of use, ideal pliability.	High needle-thread compatibility, excellent tensile strength, excellent knot tie down, minimum tissue reaction, ease of use, ideal pliability.

































# CARDIOVASCULAR PRODUCTS



POLYMER TYPE	Polyethylene terephthalate (polyester)	316L Stainless Steel Wire	Twisted 316L stainless steel wire, with polyethylene (PE) coated (sheathed)
FILAMENT TYPE	Braided (multifilament)	Monofilament	-
COATING MATERIAL	Silicon based	-	-
COLOR & USP RANGE	Green/Undyed, 2/0	Metallic grey, 2-8	2/0
CHARACTERISTICS	Excellent tensile strength, excellent knot security, secure knot positioning, ease of use, ideal suture for cardiovascular surgeries.	360° rotating or fixed head with needle alternatives (cutting and diamond) very high tensile strength, minimum tissue reaction, easy bending.	Intracorporeal curved needle and extracorporeal straight breakaway needle, with or without anchor. With anchor option less trauma on myocardium muscle.



# DOĞSAN NEEDLES

Name	Tip	Body	Symbol	Description
Round				<ul style="list-style-type: none"> <li>The most popular and classic needle type.</li> <li>Use in all soft tissue approximation including cardiovascular surgery.</li> </ul>
Cutting	Inside 			<ul style="list-style-type: none"> <li>Edges are specifically sharpened for an easy and smooth penetration.</li> <li>Cutting edge is inside the needle.</li> <li>Used in skin closures and in all applications requiring cutting needles.</li> </ul>
	Outside 			<ul style="list-style-type: none"> <li>Edges are specifically sharpened for easy and smooth penetration.</li> <li>Cutting edge is outside the needle.</li> <li>Used in skin closures and especially in plastic surgery.</li> </ul>
				<ul style="list-style-type: none"> <li>Specially designed for cardiovascular surgery for calcified vessels and tough fibrous tissues.</li> <li>The body is pressed to square shape to increase resistance to bending.</li> <li>Tip is specially sharpened for superior penetration.</li> </ul>
				<ul style="list-style-type: none"> <li>Used where better visibility and prevention of reflection of the needle is required (eg. when blood concentration is high).</li> <li>Darkening of the metal is made by surface oxidation technique.</li> <li>Widely used in cardiovascular surgery.</li> </ul>
				<ul style="list-style-type: none"> <li>Special geometry for easy penetration and high resistance to bending with a slim body.</li> <li>Widely used in plastic and cosmetic surgery and skin closures.</li> </ul>
Blunt				<ul style="list-style-type: none"> <li>The tip of the needle sharpness of round bodied is reduced.</li> <li>Uses include repair of liver and sensitive friable tissues.</li> </ul>
Diamond				<ul style="list-style-type: none"> <li>For better penetration and less tissue trauma, tip of the needle is sharpened.</li> <li>Widely used in cardiovascular/thoracic, orthopedic, obstetrics/gynecologic surgery and repairs of tendons and fibrous tissues.</li> </ul>
Spatulated				<ul style="list-style-type: none"> <li>Both side edges and upper surface are cutting while the body is flattened.</li> <li>Widely used in ophthalmic surgery.</li> </ul>

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## Doğsan Tıbbi Malzeme Sanayi A.Ş.

Headquarters: Yıldız Cad. No:55/A Beşiktaş, İstanbul  
Tel: 0(212) 258 00 54

Factory: Rize Cad. No:91/A Ortahisar, Trabzon  
Tel: 0(462) 334 06 90

Branch: Hanımeli Sok. No:26/10 Sıhhiye, Ankara  
Tel: 0(312) 231 58 06

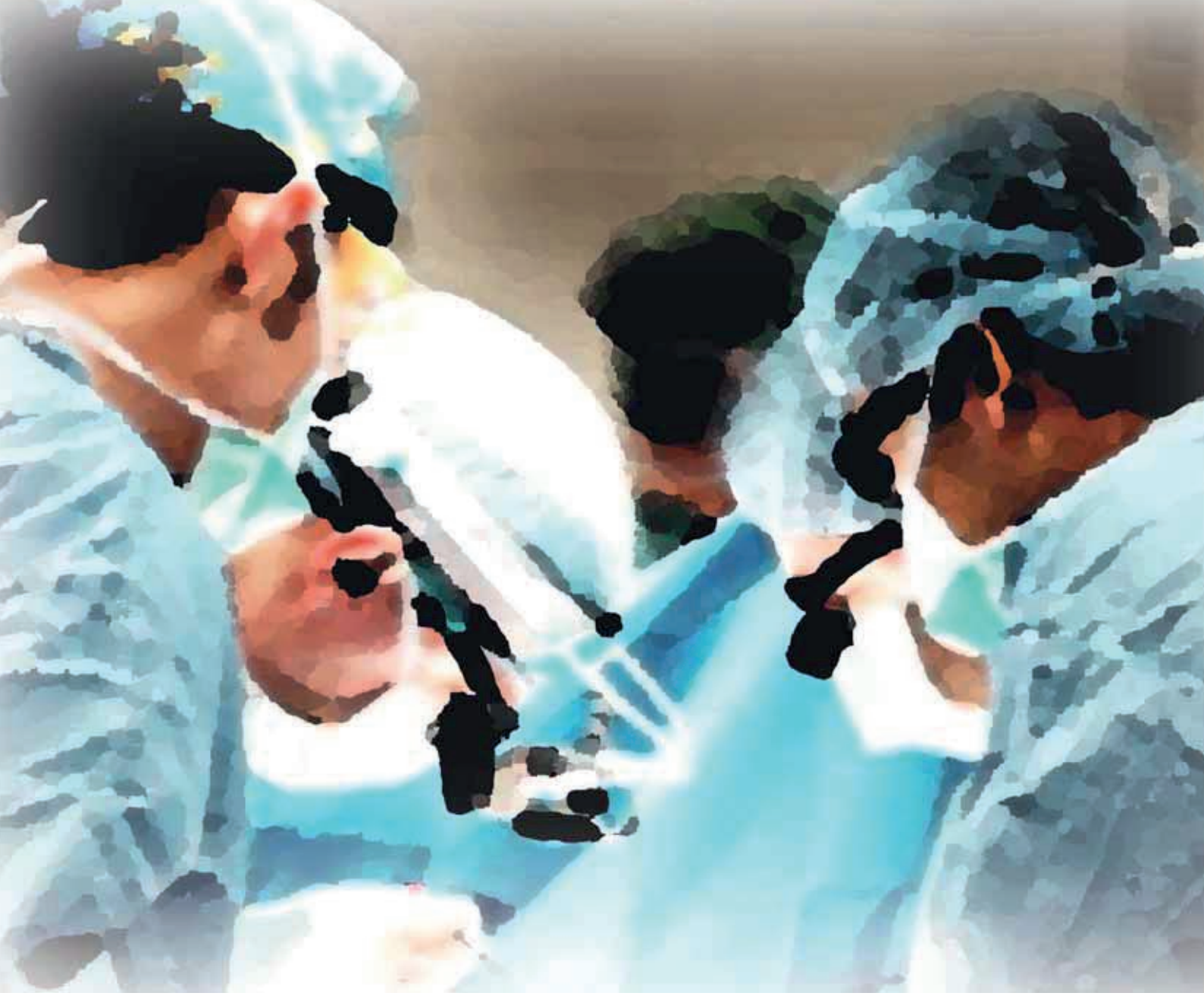
[dogsan@dogsan.com.tr](mailto:dogsan@dogsan.com.tr)  
[www.dogsan.com.tr](http://www.dogsan.com.tr)

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**doğsan**

55 Years



# doğsan

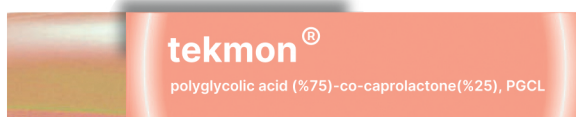
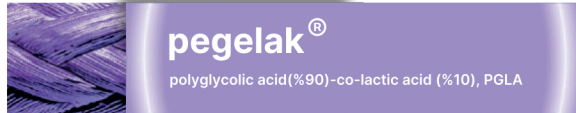
surgical sutures



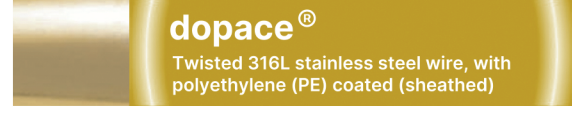
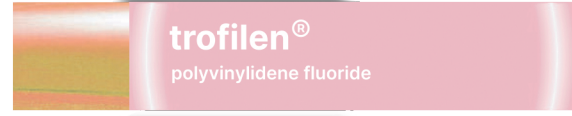


# Product Index

## absorbable



## non-absorbable



microsurgery and  
ophthalmology



# How To Use This Product Guide

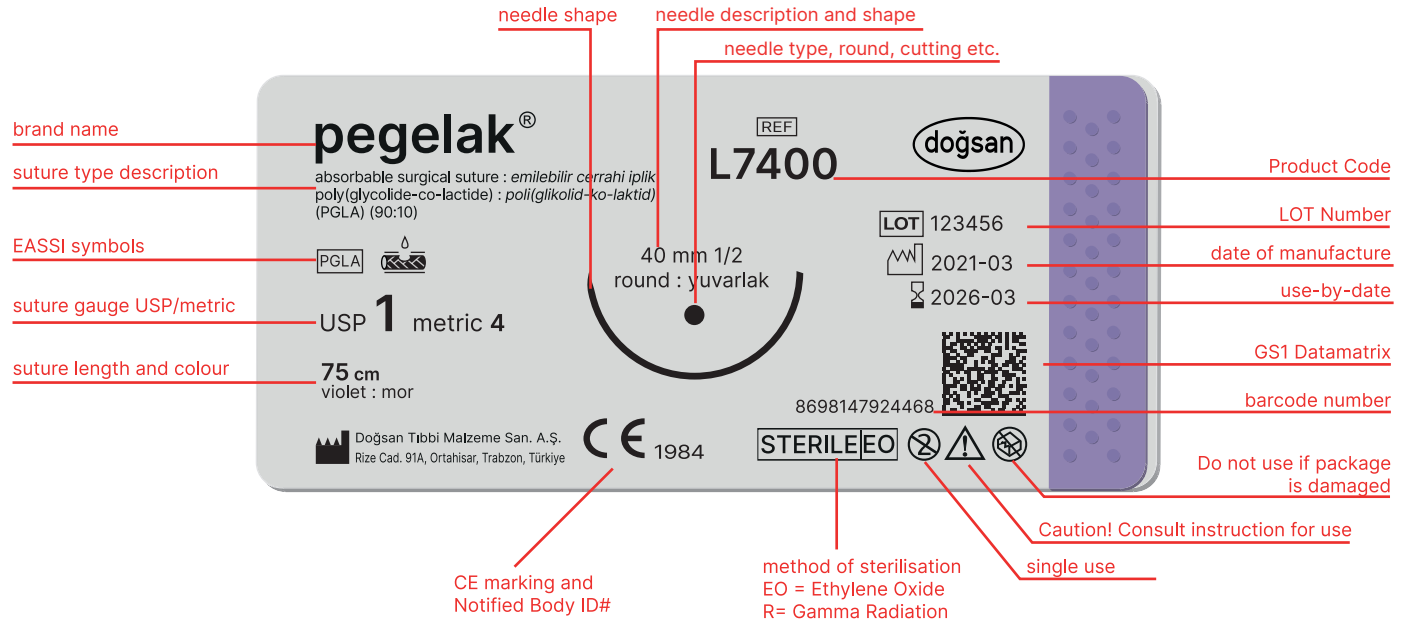
Needle description - Needle type and the description of the needle		Needle profile	Needle diameter	Colour of suture strand	Length of the suture (cm)	Size Grid - Indicates the USP size (below) and metric size (top) for each product listed.		
needle information			needle diameter	colour	suture length	0.7 6/0	1 5/0	1.5 4/0
13mm								
3/8 round bodied		330 μ	undyed	45 cm	J131			
		330 μ	violet	45 cm	L131			
		330 μ	violet	60 cm		L231		
		430 μ	violet	60 cm			L331	
3/8 PL		380 μ	violet	45 cm	L139			
		430 μ	violet	45 cm		L239		

needle length

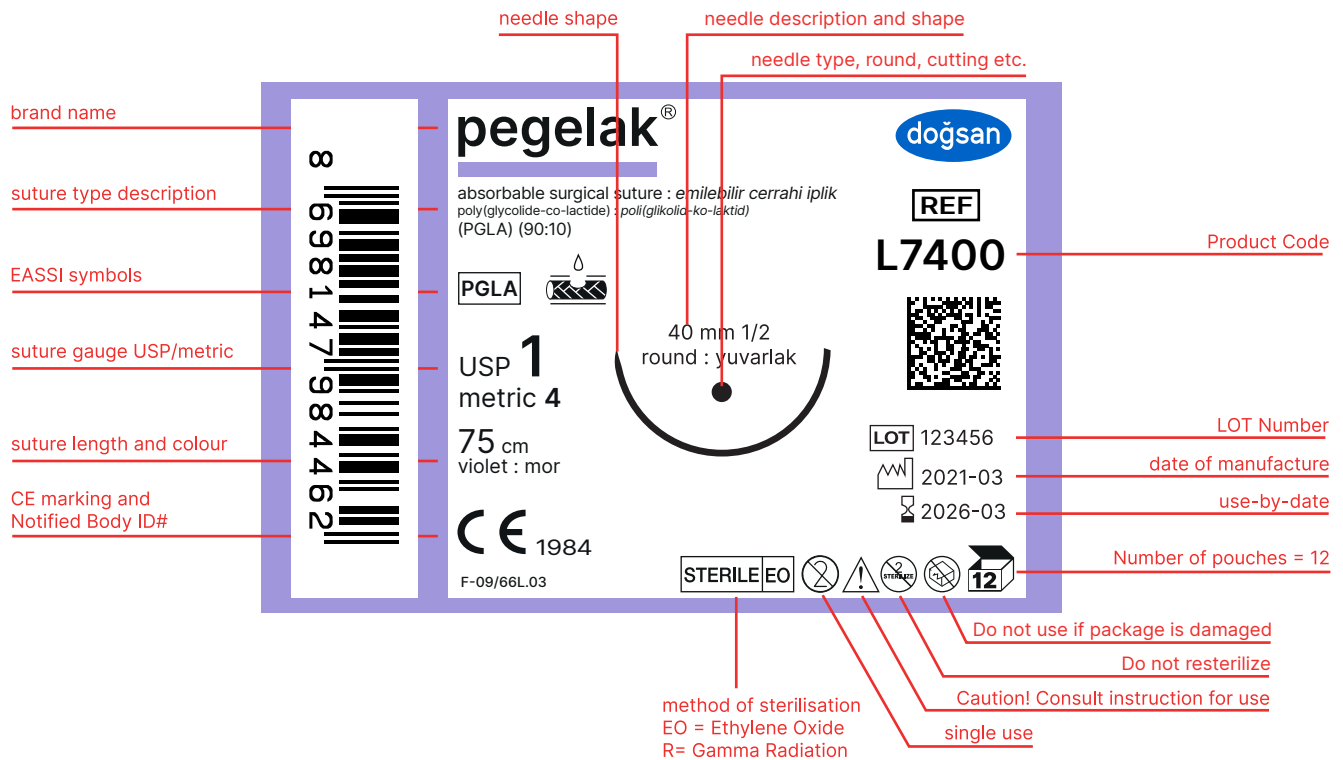
Product Code

# Explanation of Labelling

## Product Label



## Dozen Box Label



# EP/USP Tensile Strength Table (minimum values)

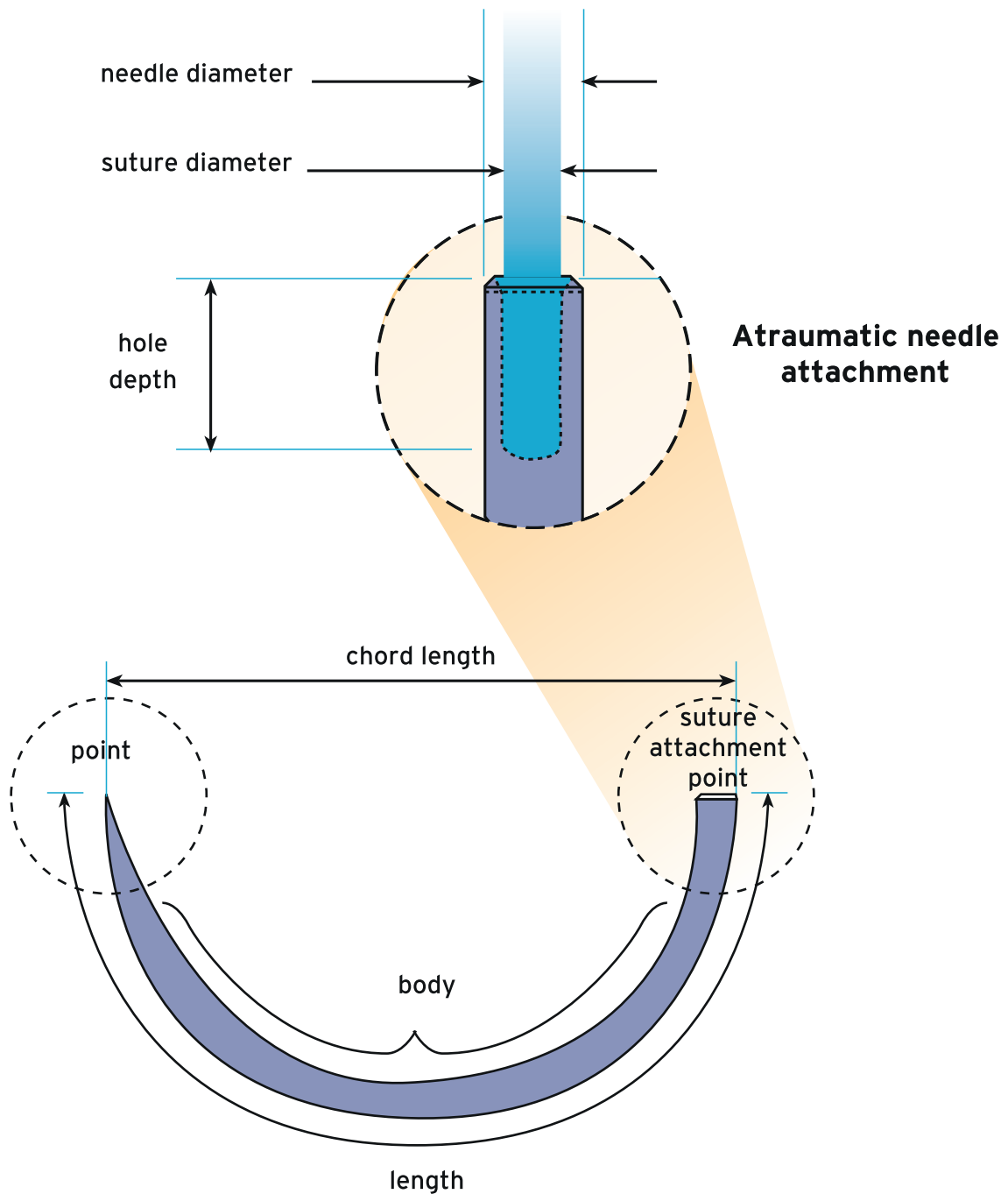
		NON-ABSORBABLE					SYNTHETIC ABSORBABLE			
		DIAMETER	TENSILE STRENGTH		STEEL WIRE		DIAMETER		TENSILE STRENGTH	
		(mm)	(kgf)		(kgf)		MONOFILAMENT	MULTIFILAMENT	(kgf)	
USP	metric	min-max	min	avarage	min	avarage	min-max (mm)	min-max (mm)	min	avarage
11/0	0.1	0.010 - 0.019	-	0.003			-	-	-	
10/0	0.2	0.020 - 0.029	-	0.010			-	-	-	
9/0	0.3	0.030 - 0.039	0.006	0.035			-	-	0.023	0.045
8/0	0.4	0.040 - 0.049	0.015	0.060			-	0.040 - 0.049	0.035	0.070
7/0	0.5	0.050 - 0.069	0.030	0.102			0.050 - 0.094	0.050 - 0.069	0.070	0.140
6/0	0.7	0.070 - 0.099	0.060	0.150			0.095 - 0.149	0.070 - 0.099	0.130	0.250
5/0	1	0.100 - 0.149	0.102	0.310			0.150 - 0.199	0.100 - 0.149	0.340	0.680
4/0	1.5	0.150 - 0.199	0.150	0.510			0.200 - 0.249	0.150 - 0.199	0.470	0.950
3/0	2	0.200 - 0.249	0.310	0.920			0.250 - 0.339	0.200 - 0.249	0.890	1.750
2/0	3	0.300 - 0.349	0.920	1.530			0.340 - 0.399	0.300 - 0.349	1.340	2.680
0	3.5	0.350 - 0.399	1.330	2.240			0.400 - 0.499	0.350 - 0.399	1.850	3.900
1	4	0.400 - 0.499	1.530	2.750			0.500 - 0.570	0.400 - 0.499	2.540	5.080
2	5	0.500 - 0.599	2.240	3.570	4.420	5.900	0.571 - 0.610	0.500 - 0.599	3.180	6.350
3 & 4	6	0.600 - 0.699	2.750	5.100	6.830	9.110	-	-	-	-
5	7	0.700 - 0.799	3.570	6.320	8.550	11.400	-	-	-	-
6	8	0.800 - 0.899	5.100	7.450	10.200	13.600	-	-	-	-
7	9	0.900 - 0.999	-	-	11.930	15.980	-	-	-	-
8	10	1.000 - 1.099	-	-	13.650	18.200	-	-	-	-





# Needles











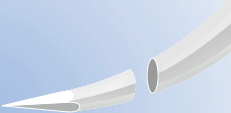






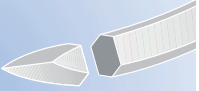












# Structure of Atraumatic Needles



## Needle Types According to Curvature



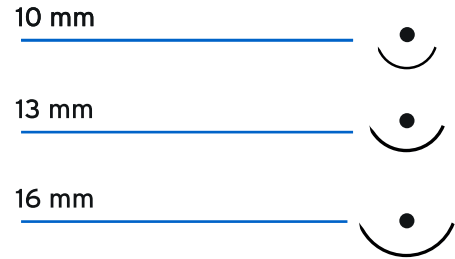
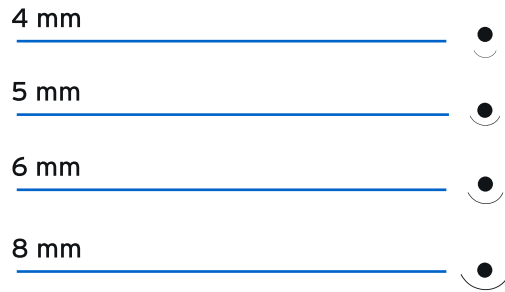
# Atraumatic Surgical Needles

name	tip	body	symbol	description
<b>round bodied</b>				<ul style="list-style-type: none"> <li>The most popular and classic needle type.</li> <li>Use in all soft tissue approximation including cardiovascular surgery.</li> </ul>
<b>cutting</b>	inside 			<ul style="list-style-type: none"> <li>Edges are specially sharpened for an easy and smooth penetration.</li> <li>Cutting edge is inside the needle.</li> <li>Used in skin closures and in all applications requiring cutting needles.</li> </ul>
	outside 			<ul style="list-style-type: none"> <li>Edges are specially sharpened for an easy and smooth penetration.</li> <li>Cutting edge is outside the needle.</li> <li>Widely used in skin closures and especially in plastic surgery.</li> </ul>
<b>KD</b> 				<ul style="list-style-type: none"> <li>Specially designed for cardiovascular surgery for calcified vessels and tough fibrous tissues.</li> <li>The body is pressed to square shape to increase resistance to bending.</li> <li>Tip is specially sharpened for superior penetration.</li> </ul>
<b>black</b> 				<ul style="list-style-type: none"> <li>Used where better visibility and prevention of reflection of the needle is required (eg when blood concentration is high).</li> <li>Darkening of the metal is made by surface oxidation technique.</li> <li>Widely used in cardiovascular surgery.</li> </ul>
<b>spatuled</b>				<ul style="list-style-type: none"> <li>Both side edges and upper surface are cutting while the body is flattened.</li> <li>Widely used in ophthalmic surgery.</li> </ul>
<b>blunt point</b>				<ul style="list-style-type: none"> <li>The tip of the needle sharpness of round bodied is reduced.</li> <li>Uses include repair of liver and sensitive friable tissues.</li> </ul>
<b>diamond (taper cut)</b>				<ul style="list-style-type: none"> <li>For better penetration and less tissue trauma, tip of the needle is sharpened.</li> <li>Widely used in cardiovascular/thoracic, orthopedic, obstetrics/gynecologic surgery and repairs of tendons and fibrous</li> </ul>
<b>PL</b> 				<ul style="list-style-type: none"> <li>Special geometry for easy penetration and high resistance to bending with a slim body.</li> <li>Widely used in plastic and cosmetic surgery and skin closures.</li> </ul>

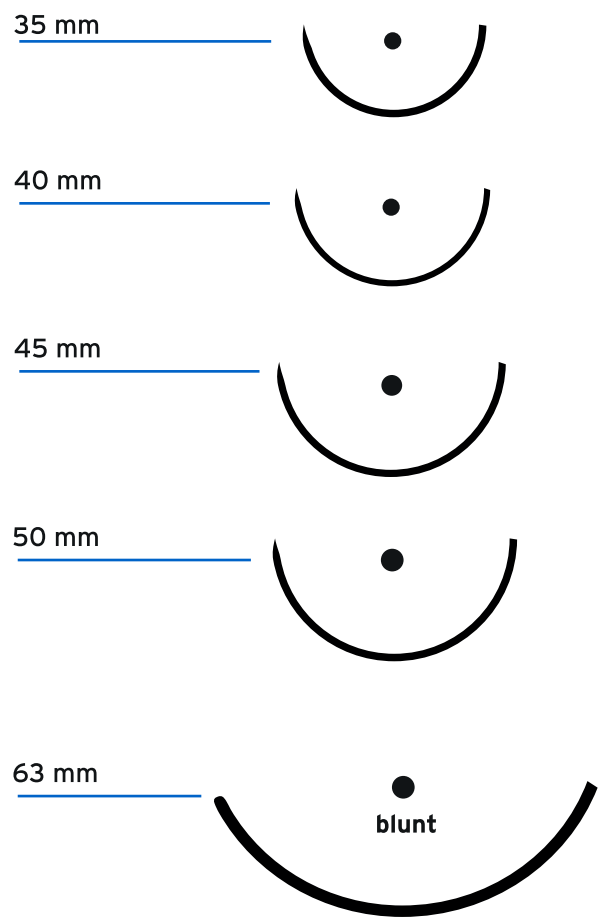
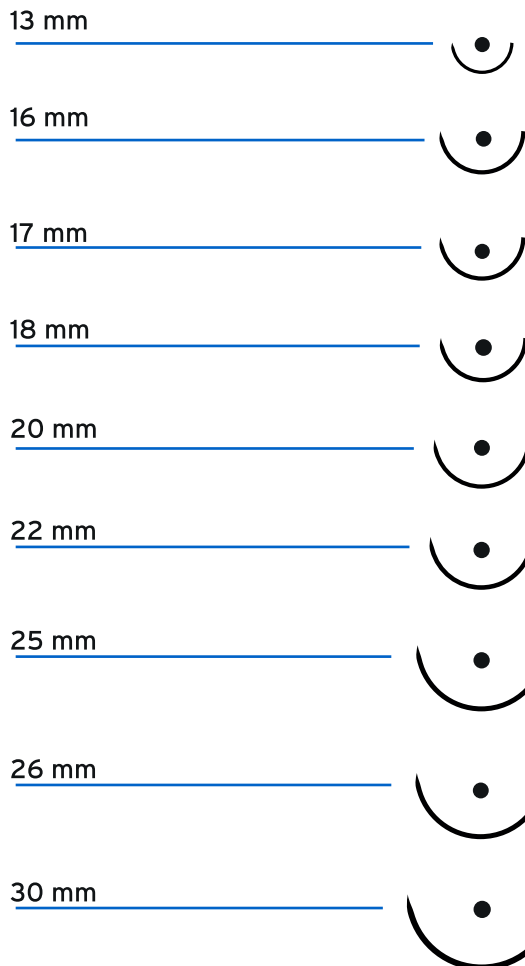


# Round Bodied (taper) Needles

3/8



1/2



5/8



# Special Needles

## Diamond (taper cut)

3/8

18 mm



1/2

17 mm



25 mm



40 mm



45 mm



55 mm



## KD

3/8

8 mm



10 mm



10 mm



black

13 mm



1/2

16 mm



20 mm



25 mm



# Special Needles

## Black

3/8

8 mm  black

10 mm  black


10 mm  black

13 mm  black

1/2

16 mm  black

20 mm  black

25 mm  black

## Spatulated Needles

3/8

6 mm 

1/4

8 mm 

## PL Needles

13 mm 

16 mm 

19 mm 

25 mm 

# Cutting Needles

1/2

22 mm

30 mm

37 mm

40 mm

50 mm



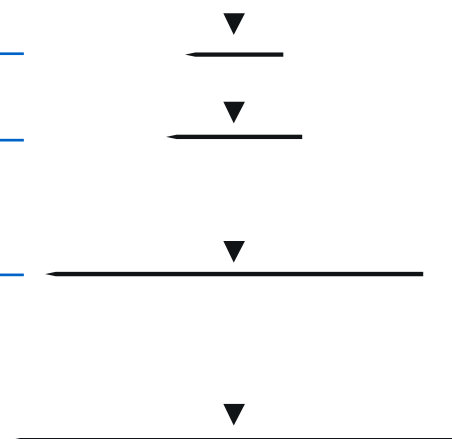
straight

13 mm

18 mm

50 mm

60 mm



3/8

8 mm

10 mm

13 mm

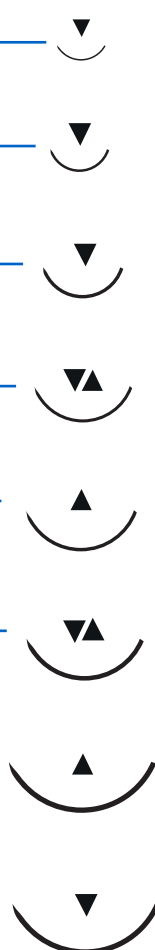
16 mm

18 mm

20 mm

25 mm

26 mm



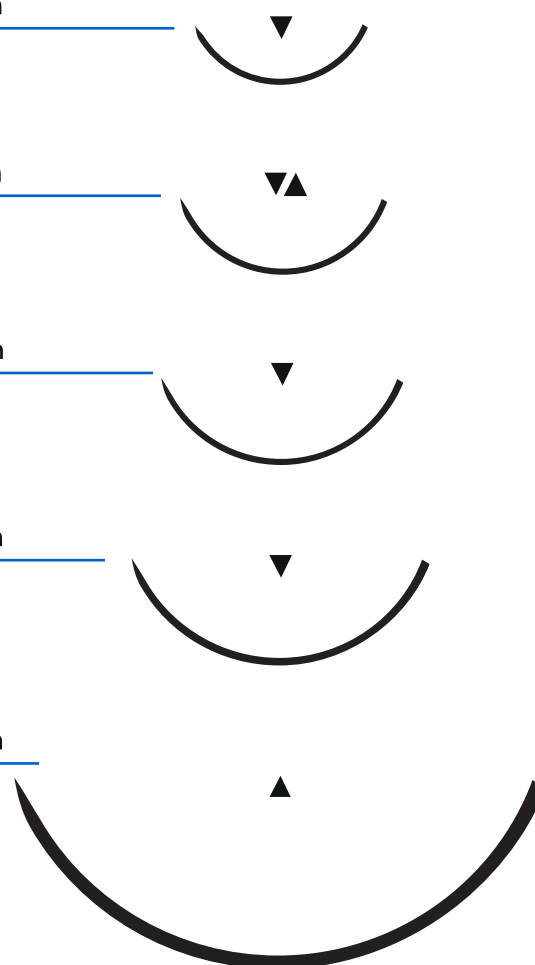
30 mm

35 mm

40 mm

50 mm

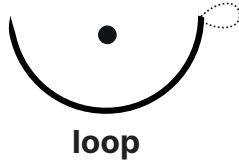
90 mm



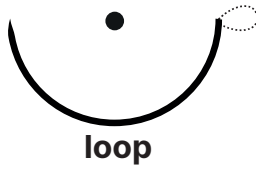
# Special Needles

## Loop

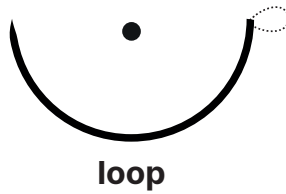
40 mm



45 mm



50 mm



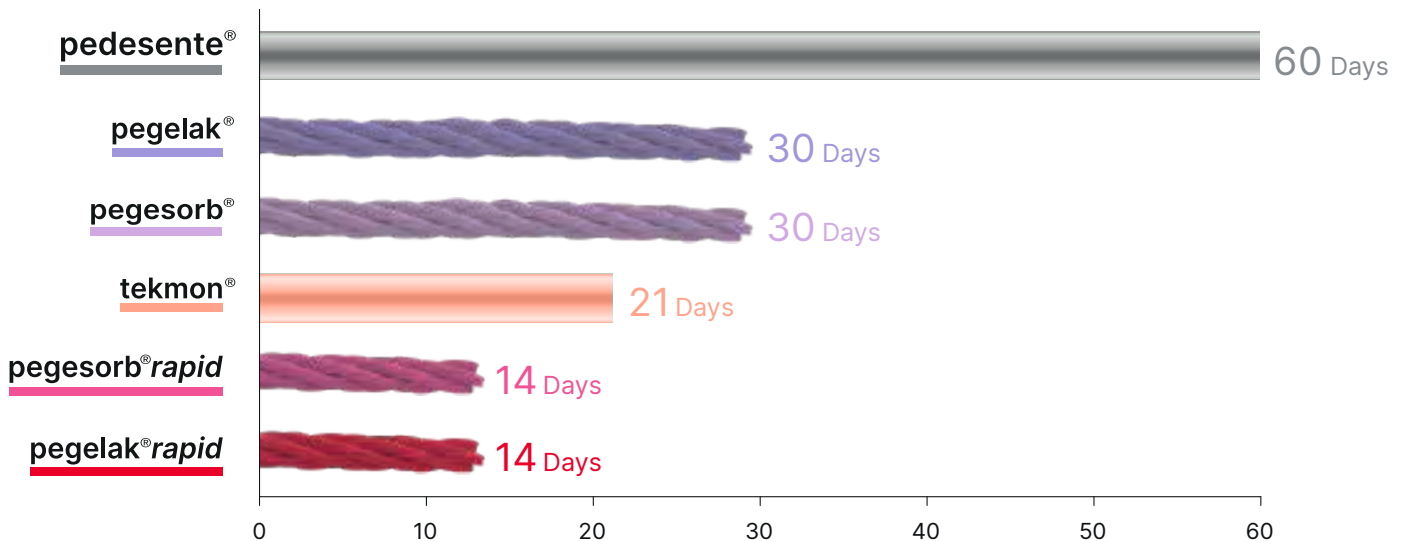




# Absorbable Sutures

# Absorbable Sutures

## Wound Support\*



\*Data is intended as guidance only.

## Absorbable Sutures For All Your Needs











# pedesente®








<b>Description:</b>	Absorbable, synthetic, monofilament suture for long term wound support, ideal for slow healing wounds
<b>Characteristics:</b>	Easy passage through tissue/smoothness of a monofilament High initial strength Slow decrease in tensile strength Minimal tissue reaction Ideal for long term support  Long term wound support ( ~ 60 days)
<b>Absorption:</b>	Essentially complete in 180-210 days
<b>Material :</b>	polydioxanone, PDO 100%
<b>Structure:</b>	Monofilament
<b>Colour :</b>	Violet
<b>Sterilization:</b>	EO
<b>Packaging:</b>	Available in USP 7/0 (metric 0.5) through USP 2 (metric 5) in boxes of 12 (one dozen) aluminium pouches.




needle information		needle diameter	colour	suture lenght	0.5	0.7	1	1.5	2
					7/0	6/0	5/0	4/0	3/0
8 mm									
3/8 round bodied, double		220 μ	violet	75 cm	D0812				
		240 μ	violet	45 cm		D1812			
				75 cm		D1912			
3/8 KD, double		240 μ	violet	60 cm		D1872			
3/8 round bodied		240 μ	violet	30 cm		D181			
9 mm									
3/8 round bodied, double		200 μ	violet	75 cm	D0912				
10 mm									
3/8 cutting		280 μ	violet	45 cm		D103			
3/8 cutting, double		280 μ	violet	45 cm		D1032			
13 mm									
3/8 round bodied, double		220 μ	violet	45 cm	D0312				
		330 μ	violet	75 cm		D1312	D2312		
3/8 PL		280 μ	violet	45 cm		D139			
		330 μ	violet	45 cm			D239		
16 mm									
1/2 round bodied			violet	75 cm			D2160	D3160	D4160
3/8 round bodied			violet	75 cm			D2161	D3161	
1/2 round bodied, double			violet	90 cm			D21602	D31602	
3/8 cutting			violet	75 cm			D2165	D3165	D4165
3/8 PL			violet	45 cm			D2169	D3169	






needle information		colour	suture length	1	1.5	2	3	3.5
				5/0	4/0	3/0	2/0	0

19 mm								
3/8 PL		violet	45 cm	D2199	D3199	D4199		


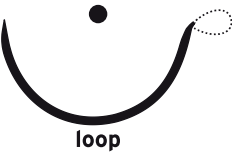
20 mm								
1/2 round bodied		violet	75 cm		D3200	D4200		
3/8 cutting		violet	45 cm		D3203	D4203		


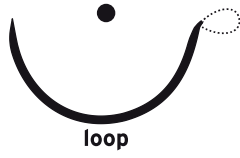
25 mm								
1/2 round bodied		violet	75 cm		D3250	D4250	D5250	D6250
3/8 cutting		violet	45 cm		D3255	D4255	D5255	
3/8 PL		violet	45 cm		D3259	D4259		


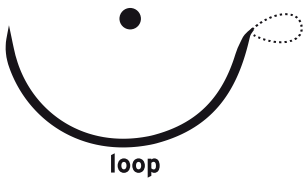
26 mm								
3/8 cutting		violet	75 cm			D4263		

30 mm								
1/2 round bodied		violet	75 cm			D4300	D5300	D6300
3/8 cutting		violet	75 cm				D5303	

needle information	colour	suture length	3	3.5	4	5
			2/0	0	1	2

40 mm							
1/2 round bodied		violet	75 cm	D5400	D6400	D7400	D8400
		violet	90 cm			D7410	D8410
1/2 round bodied, loop		violet	150 cm		D64003	D74003	

45 mm							
1/2 round bodied		violet	75 cm			D7450	D8450
1/2 round bodied, loop		violet	150 cm			D74503	

50 mm							
1/2 round bodied		violet	75 cm		D6500	D7500	D8500
		violet	90 cm				D8510
1/2 round bodied, loop		violet	150 cm		D65003	D75003	