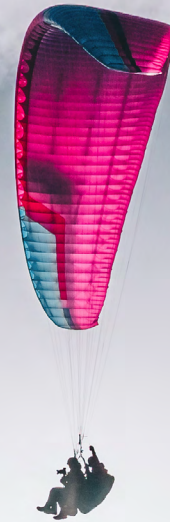


# TAKOO 6

Technical *specifications*



## TECHNICAL SPECIFICATIONS

			<b>38</b>	<b>41</b>	<b>44</b>
<b>CELLS</b>	NUMBER		54	54	54
<b>ASPECT RATIO</b>	FLAT		5,5	5,5	5,5
	PROJECTED		4,15	4,15	4,15
<b>AREA</b>	FLAT	m <sup>2</sup>	38	41	44
	PROJECTED	m <sup>2</sup>	32,27	34,82	37,37
<b>SPAN</b>	FLAT	m	14,46	15,02	15,56
<b>CHORD</b>	MAX	m	3,29	3,41	3,54
<b>LINES</b>	TOTAL	m	379	395	408
	MAIN		2+1/3/3/3	2+1/3/3/3	2+1/3/3/3
<b>RISERS</b>	NUMBER	4+1	A+A'/B/C/D	A+A'/B/C/D	A+A'/B/C/D
	SPEED-BAR	mm	100	100	100
<b>GLIDER WEIGHT</b>		kg	7,36	7,78	8,28
<b>TOTAL WEIGHT IN FLIGHT</b>	MIN-MAX	kg	110-190	120-220	140-240
<b>CERTIFICATION</b>			EN/LTF B & DGAC	EN/LTF B & DGAC	EN/LTF B & DGAC

The total weight of the wing may differ ±2% due to variations in the weight of the fabric supplied by the manufacturers.



# MATERIALS

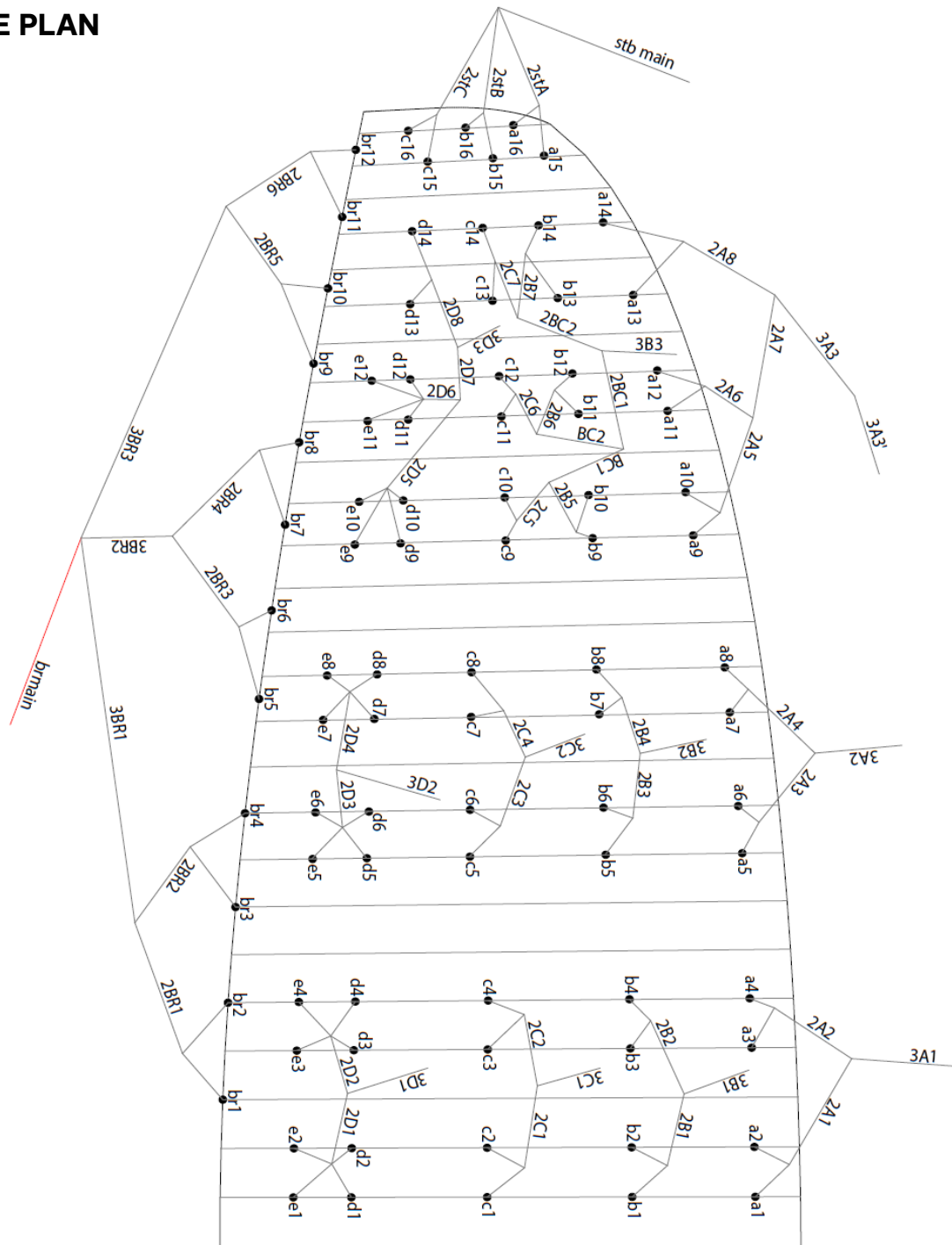
CANOPY	FABRIC CODE	SUPPLIER
UPPER SURFACE	30 DMF / N20 DMF	DOMINICO TEX CO (KOREA)
BOTTOM SURFACE	N20 DMF / 2044 32 PS	DOMINICO TEX CO (KOREA)
PROFILES	30 DFM / 2044 32 FM	DOMINICO TEX CO (KOREA)
DIAGONALS	30 DFM / 2044 32 FM	DOMINICO TEX CO (KOREA)
LOOPS	LKI - 12	KOLON IND. (KOREA)
REINFORCEMENT LOOPS	W-420 / RIPSTOP FABRIC	D-P (GERMANY)
TRAILING EDGE REINFORCEMENT	MYLAR	D-P (GERMANY)
RIBS REINFORCEMENT	LTN-1/0.8 STICK	SPORTWARE CO.CHINA
THREAD	SERAFIL 60	AMAN (GERMANY)

SUSPENSIONS LINES	FABRIC CODE	SUPPLIER
UPPER CASCADES	MATRIX - 80	EDELRID (GERMANY)
UPPER CASCADES	PPSL - 120	LIROS GMHB (GERMANY)
MIDDLE CASCADES	PPSL - 120	LIROS GMHB (GERMANY)
MIDDLE CASCADES	PPSL - 200	LIROS GMHB (GERMANY)
MIDDLE CASCADES	TNL - 280	TEIJIM LIMITED (JAPAN)
MIDDLE CASCADES	MATRIX - 80	EDELRID (GERMANY)
MAIN	TNL - 140	TEIJIM LIMITED (JAPAN)
MAIN	TNL - 280	TEIJIM LIMITED (JAPAN)
MAIN	TNL - 400	TEIJIM LIMITED (JAPAN)
MAIN BREAK	TARAX 240	EDELRID (GERMANY)
THREAD	SERAFIL 60	AMAN (GERMANY)

RISERS	FABRIC CODE	SUPPLIER
MATERIAL	G-R 22	TECNI SANGLES (FRANCE)
COLOR INDICATOR	210D	TECNI SANGLES (FRANCE)
THREAD	V138	COATS (ENGLAND)
MAILLONS	MRI4	ANSUNG PRECISION (KOREA)
PULLEYS	RF25109	RONSTAN (AUSTRALIA)



# LINE PLAN



## LINE REPLACEMENT

The use of new high performance materials in modern wings is now common. The advantages of using these materials in terms of performance are widely acknowledged as part of our sport's evolution. However, along with those technological advances come additional responsibilities which cannot be avoided. As a result, line inspection and replacement must be carried out more frequently. That increased frequency appears to be encouraging some pilots to try to perform line replacement themselves.

**WE STRONGLY RECOMMEND ANY LINE REPLACEMENT IS PERFORMED BY AN AUTHORISED SPECIALIST ONLY.**

Ultimately, if the pilot decides to perform any line replacement without professional oversight they therefore assume all responsibility. In this case, these guidelines will have to be followed.

### BEFORE REMOVING ANY LINES, CHECK:

- That the line plan is correct according to the glider model and size.
- That the line kit is complete and correct.
- Never assume but always check each individual line for the correct specification.

### AFTER CONFIRMING THAT ALL LINES ARE CORRECT:

- Fit the new line(s) WITHOUT removing the label.
- Once replaced, measure each line length to confirm the correct measurement.
- Inflate the wing to check for any irregularities.
- The line labels may then be removed but NOT BEFORE completion of the line replacement.

*Niviuk strongly recommends for any line replacement to be carried out by an authorised professional only, and will not accept responsibility for any damage or injury caused as a result of incorrect re-assembly.*

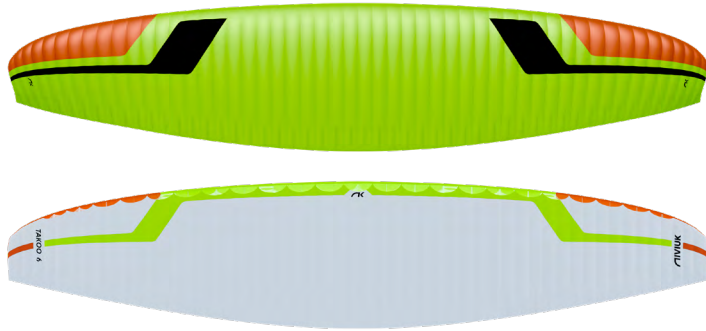
# RISER PLAN

**A A' B C D**

**3A1 3A3 3B1 3C1 3D1**  
**3A2 3B2 3C2 3D2**  
**3B3 stab 3D3**



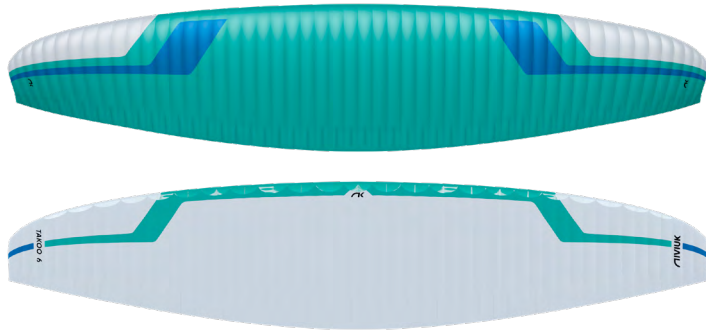
# COLORS



<b>SHAGGY</b>	<b>UPPER</b>	LIME	<b>LOWER</b>	WHITE
	<b>TOP 1</b>	BLACK	<b>BOTTOM 1</b>	LIME
	<b>TOP 2</b>	DARK BRICK	<b>BOTTOM 2</b>	DARK BRICK



<b>CINNAMON</b>	<b>UPPER</b>	DARK BRICK	<b>LOWER</b>	WHITE
	<b>TOP 1</b>	WHITE	<b>BOTTOM 1</b>	DARK BRICK
	<b>TOP 2</b>	GOLD	<b>BOTTOM 2</b>	GOLD



<b>DROP</b>	<b>UPPER</b>	SPECTRA GREEN	<b>LOWER</b>	WHITE
	<b>TOP 1</b>	SLATE BLUE	<b>BOTTOM 1</b>	SPECTRA GREEN
	<b>TOP 2</b>	WHITE	<b>BOTTOM 2</b>	SLATE BLUE



<b>CINDER</b>	<b>UPPER</b>	PINK	<b>LOWER</b>	WHITE
	<b>TOP 1</b>	BLACK	<b>BOTTOM 1</b>	PINK
	<b>TOP 2</b>	SLATE BLUE	<b>BOTTOM 2</b>	SLATE BLUE

# WING LOAD

## TAKOO 6

<b>38</b>		<b>41</b>		<b>44</b>	
P.T.V.	KG/M2	P.T.V.	KG/M2	P.T.V.	KG/M2
110	= 2,89	120	= 2,93	140	= 3,18
115	= 3,03	125	= 3,05	145	= 3,30
120	= 3,16	130	= 3,17	150	= 3,41
125	= 3,29	135	= 3,29	155	= 3,52
130	= 3,42	140	= 3,41	160	= 3,64
135	= 3,55	145	= 3,54	165	= 3,75
140	= 3,68	150	= 3,66	170	= 3,86
145	= 3,82	155	= 3,78	175	= 3,98
150	= 3,95	160	= 3,90	180	= 4,09
155	= 4,08	165	= 4,02	185	= 4,20
160	= 4,21	170	= 4,15	190	= 4,32
165	= 4,34	175	= 4,27	195	= 4,43
170	= 4,47	180	= 4,39	200	= 4,55
175	= 4,61	185	= 4,51	205	= 4,66
180	= 4,74	190	= 4,63	210	= 4,77
185	= 4,87	195	= 4,76	215	= 4,89
190	= 5,00	200	= 4,88	220	= 5,00
		205	= 5,00	225	= 5,11
		210	= 5,12	230	= 5,23
		215	= 5,24	235	= 5,34
		220	= 5,37	240	= 5,45

# LINES

## TAKOO 6 - 38

ref.	mat.	kg	color	mm
A				
a1	PPSL	120	GREEN	563
a2	PPSL	120	GREEN	495
a3	PPSL	120	GREEN	527
a4	PPSL	120	GREEN	541
a5	PPSL	120	GREEN	535
a6	PPSL	120	GREEN	479
a7	PPSL	120	GREEN	494
a8	PPSL	120	GREEN	500
a9	PPSL	120	GREEN	463
a10	MATRIX	80	BLUE	380
a11	MATRIX	80	BLUE	365
a12	MATRIX	80	BLUE	353
a13	MATRIX	80	BLUE	1099
a14	MATRIX	80	BLUE	1048
a15	MATRIX	80	BLUE	515
a16	MATRIX	80	BLUE	417

2A1	PPSL	200	GREEN	1747
2A2	PPSL	200	GREEN	1674
2A3	PPSL	200	GREEN	1692
2A4	PPSL	200	GREEN	1622
2A5	PPSL	200	GREEN	1370
2A6	PPSL	120	GREEN	1273
2A7	TNL	280	GREEN	1444
2A8	PPSL	120	GREEN	1841

3A1	TNL	400	GREEN	6071
3A2	TNL	400	GREEN	5987
3A3	TNL	400	GREEN	4236
3A3'	TNL	400	GREEN	500

ref.	mat.	kg	color	mm
B				
b1	PPSL	120	BLUE	559
b2	PPSL	120	BLUE	485
b3	PPSL	120	BLUE	520
b4	PPSL	120	BLUE	538
b5	PPSL	120	BLUE	531
b6	PPSL	120	BLUE	470
b7	PPSL	120	BLUE	485
b8	PPSL	120	BLUE	498
b9	PPSL	120	BLUE	444
b10	MATRIX	80	BLUE	366
b11	MATRIX	80	BLUE	400
b12	MATRIX	80	BLUE	389
b13	MATRIX	80	BLUE	1025
b14	MATRIX	80	BLUE	976
b15	MATRIX	80	BLUE	493
b16	MATRIX	80	BLUE	430

2B1	TNL	280	BLUE	1566
2B2	TNL	280	BLUE	1487
2B3	TNL	280	BLUE	1511
2B4	PPSL	200	BLUE	1444
2B5	PPSL	120	BLUE	1158
2B6	PPSL	120	BLUE	981
2B7	PPSL	120	BLUE	438
BC1	PPSL	200	BLUE	207
BC2	PPSL	200	BLUE	244
2BC1	TNL	280	BLUE	1377
2BC2	PPSL	200	BLUE	1414

3B1	TNL	400	BLUE	6167
3B2	TNL	400	BLUE	6081
3B3	TNL	400	BLUE	4773

ref.	mat.	kg	color	mm
C				
c1	PPSL	120	BLUE	560
c2	PPSL	120	BLUE	487
c3	PPSL	120	BLUE	520
c4	PPSL	120	BLUE	539
c5	PPSL	120	BLUE	531
c6	PPSL	120	BLUE	472
c7	PPSL	120	BLUE	484
c8	PPSL	120	BLUE	499
c9	PPSL	120	BLUE	444
c10	MATRIX	80	BLUE	368
c11	MATRIX	80	BLUE	396
c12	MATRIX	80	BLUE	390
c13	MATRIX	80	BLUE	1006
c14	MATRIX	80	BLUE	970
c15	MATRIX	80	BLUE	446
c16	MATRIX	80	BLUE	410

2C1	TNL	280	BLUE	1565
2C2	TNL	280	BLUE	1491
2C3	TNL	280	BLUE	1510
2C4	PPSL	200	BLUE	1448
2C5	PPSL	120	BLUE	1159
2C6	PPSL	120	BLUE	995
2C7	PPSL	120	BLUE	469
2stA	MATRIX	80	BLUE	984
2stB	MATRIX	80	BLUE	952
2stC	MATRIX	80	BLUE	1045
stb main	TNL	140	RED	5880

3C1	TNL	400	BLUE	6165
3C2	TNL	400	BLUE	6088

ref.	mat.	kg	color	mm
D				
d1	MATRIX	80	BLUE	923
d2	MATRIX	80	BLUE	829
d3	MATRIX	80	BLUE	860
d4	MATRIX	80	BLUE	901
d5	MATRIX	80	BLUE	841
d6	MATRIX	80	BLUE	757
d7	MATRIX	80	BLUE	808
d8	MATRIX	80	BLUE	843
d9	MATRIX	80	BLUE	791
d10	MATRIX	80	BLUE	680
d11	MATRIX	80	BLUE	745
d12	MATRIX	80	BLUE	732
d13	MATRIX	80	BLUE	733
d14	MATRIX	80	BLUE	717

2D1	PPSL	200	BLUE	779
2D2	PPSL	200	BLUE	697
2D3	PPSL	200	BLUE	795
2D4	PPSL	200	BLUE	691
2D5	PPSL	120	BLUE	714
2D6	PPSL	120	BLUE	520
2D7	PPSL	200	BLUE	923
2D8	PPSL	120	BLUE	1381

3D1	TNL	280	BLUE	6715
3D2	TNL	280	BLUE	6602
3D3	TNL	280	BLUE	5644

ref.	mat.	kg	color	mm
E				
e1	MATRIX	80	BLUE	1015
e2	MATRIX	80	BLUE	929
e3	MATRIX	80	BLUE	956
e4	MATRIX	80	BLUE	989
e5	MATRIX	80	BLUE	931
e6	MATRIX	80	BLUE	847
e7	MATRIX	80	BLUE	888
e8	MATRIX	80	BLUE	911
e9	MATRIX	80	BLUE	858
e10	MATRIX	80	BLUE	745
e11	MATRIX	80	BLUE	800
e12	MATRIX	80	BLUE	778

2E1	MATRIX	80	BLUE	1015
2E2	MATRIX	80	BLUE	929
2E3	MATRIX	80	BLUE	956
2E4	MATRIX	80	BLUE	989
2E5	MATRIX	80	BLUE	931
2E6	MATRIX	80	BLUE	847
2E7	MATRIX	80	BLUE	888
2E8	MATRIX	80	BLUE	911
2E9	MATRIX	80	BLUE	858
2E10	MATRIX	80	BLUE	745
2E11	MATRIX	80	BLUE	800
2E12	MATRIX	80	BLUE	778

3E1	MATRIX	80	BLUE	1015
3E2	MATRIX	80	BLUE	929
3E3	MATRIX	80	BLUE	956
3E4	MATRIX	80	BLUE	989
3E5	MATRIX	80	BLUE	931
3E6	MATRIX	80	BLUE	847
3E7	MATRIX	80	BLUE	888
3E8	MATRIX	80	BLUE	911
3E9	MATRIX	80	BLUE	858
3E10	MATRIX	80	BLUE	745
3E11	MATRIX	80	BLUE	800
3E12	MATRIX	80	BLUE	778

ref.	mat.	kg	color	mm
BRAKE				
br1	MATRIX	80	RED	973
br2	MATRIX	80	RED	678
br3	MATRIX	80	RED	911
br4	MATRIX	80	RED	841
br5	MATRIX	80	RED	875
br6	MATRIX	80	RED	706
br7	MATRIX	80	RED	682
br8	MATRIX	80	RED	811
br9	MATRIX	80	RED	715
br10	MATRIX	80	RED	680
br11	MATRIX	80	RED	735
br12	MATRIX	80	RED	794

2BR1	MATRIX	80	RED	1,300
2BR2	MATRIX	80	RED	811
2BR3	MATRIX	80	RED	840
2BR4	MATRIX	80	RED	826
2BR5	MATRIX	80	RED	642
2BR6	MATRIX	80	RED	566
3BR1	PPSL	120	RED	2648
3BR2	PPSL	120	RED	2301
3BR3	PPSL	120	RED	2474

BRMAIN	TARAX	240	RED	4620
			KNOT POINT:	4420







# LINE MEASUREMENTS

## TAKOO 6 - 38

LINES HEIGHT + RISER MM

	A	B	C	D	E	br
1	8741	8653	8647	8779	8869	9401
2	8673	8579	8574	8685	8783	9106
3	8632	8535	8533	8634	8728	8850
4	8646	8553	8552	8675	8761	8780
5	8574	8484	8486	8600	8688	8496
6	8518	8423	8427	8516	8604	8327
7	8463	8373	8379	8463	8541	8289
8	8469	8386	8394	8498	8564	8418
9	8349	8299	8300	8423	8490	8311
10	8265	8221	8224	8312	8377	8276
11	8154	8115	8125	8183	8238	8255
12	8142	8104	8119	8170	8216	8244
13	8025	8003	8015	8113		
14	7974	7954	7979	8097		
15	7733	7679	7725			
16	7635	7616	7689			

RISERS LENGHT MM

	A	B	C	D	
	350	350	350	350	STANDARD
	350	375	400	450	TRIMMER OPENED

## TAKOO 6 - 41

LINES HEIGHT + RISER MM

	A	B	C	D	E	br
1	9082	8989	8985	9120	9216	9796
2	9012	8912	8910	9024	9127	9490
3	8970	8868	8868	8972	9072	9224
4	8985	8887	8889	9015	9106	9153
5	8913	8817	8821	8939	9033	8860
6	8854	8755	8760	8853	8946	8685
7	8798	8704	8712	8799	8882	8647
8	8805	8719	8727	8836	8906	8782
9	8683	8629	8630	8760	8831	8672
10	8596	8547	8551	8645	8713	8635
11	8481	8439	8448	8512	8569	8615
12	8469	8428	8442	8498	8546	8607
13	8348	8322	8334	8440		
14	8295	8272	8298	8423		
15	8045	7989	8038			
16	7944	7923	8000			

RISERS LENGHT MM

	A	B	C	D	
	350	350	350	350	STANDARD
	350	375	400	450	TRIMMER OPENED

## TAKOO 6 - 44

LINES HEIGHT + RISER MM

	A	B	C	D	E	br
1	9409	9315	9307	9449	9549	10146
2	9337	9236	9230	9350	9457	9830
3	9296	9192	9188	9298	9401	9556
4	9311	9212	9210	9344	9438	9483
5	9239	9142	9142	9265	9362	9179
6	9179	9078	9079	9177	9273	9000
7	9121	9026	9030	9121	9207	8961
8	9129	9041	9046	9160	9233	9101
9	9006	8952	8953	9084	9157	8988
10	8916	8868	8871	8965	9035	8951
11	8799	8755	8765	8826	8885	8931
12	8787	8744	8759	8813	8862	8925
13	8660	8635	8648	8753		
14	8606	8584	8611	8736		
15	8341	8283	8333			
16	8236	8214	8294			

LRISERS LENGHT MM

	A	B	C	D	
	350	350	350	350	STANDARD
	350	375	400	450	TRIMMER OPENED

# SUSPENSION

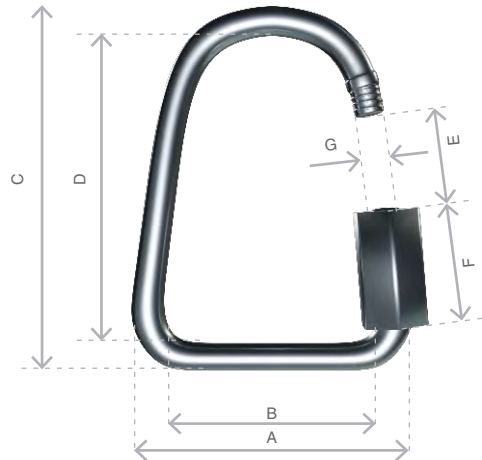
MATERIAL CODE		MATRIX	PPSL	PPSL	TNL	TNL	TNL	TNL	TARAX
STRENGTH CODE		80	120	200	080	140	280	400	240
DIAMETER m/m	∅	0,9	1,15	1,42	1,1	1,4	1,8	2,3	1,9
CORE MATERIAL		DYNEEMA	DYNEEMA	DYNEEMA	TECHNORA	TECHNORA	TECHNORA	TECHNORA	DYNEEMA
SLEEVE MATERIAL		POLYESTER	POLYESTER	POLYESTER	POLYESTER	POLYESTER	POLYESTER	POLYESTER	POLYESTER
WEIGHT G/M	TOTAL	0,7	1	1,6	1,1	1,2	2,7	4	2,3
BREAKING STRENGTH daN	MINIMUM	80	120	200	80	140	280	460	240
	MAXIMUM		159	241	92	160	320	470	
STRENGTH AFTER									
5.000 BENDING	TEST EN		135	191	36,7	76,1	134,7	160,1	
CYCLES									
ELONGATION AT	5 daN en %	0,1-0,4			0,3	0,2	0,2	0,05	0,1-0,3
	10 daN en %		0,2	0,24	0,5	0,3	0,3	0,1	0,2-0,4
	15 daN en %				0,7	0,5	0,4	0,2	0,2-0,6
	20 daN en %				1	0,6	0,4	0,2	0,3-0,7
	25 daN en %	0,8-1			1,3	0,8	0,5	0,3	0,4-0,8
	30 daN en %		0,6	0,55	2,3	1,5	0,9	0,6	
	75 daN en %	2,5-2,8			2,8	2,3	1,3	0,8	0,9-1,2
	100 daN en %					2,7	1,7	1,1	1,1-1,5
	125 daN en %					3,2	2	1,4	
	150 daN en %						2,3	1,7	1,5-2,1
	175 daN en %						2,7	2	
	200 daN en %						2,8	2,2	2-2,8
ELONGATION MAX. BREAKING STRENGTH %			2		3	3,4	4,1	4,6	

# MAILLON & PULLEY

## DESCRIPTION MAILLON

MAILLON	DELTA
CODE	MRI4
MATERIAL	STAINLESS STEEL
SIZE	4,3 M/M
WEIGHT	12 G/PIECE
QUANTITY	10 PIECES
INSERTS	2 GREEN / 8 BLACK

## TECHNICAL SPECIFICATIONS



DIMENSIONS	m/m
A	28
B	20
C	38
D	30
E	4
F	11
G	4
LOAD	KG
WORKING LIMIT	150
BREAKING	750

## DESCRIPTION MAILLON

MATERIAL	
AISI 304 STAINLESS STEEL	STANDARD

CLOSING APPLIED BY MANUAL & ENTIRE SCREWING OF THE NUT TO GUARANTEE THE HIGHEST SAFETY (NO THREAD SHOULD BE OBVIOUS)

SYSTEMATIC CONTROL OF MAILLON QUICK-LINKS BEFORE EVERY FLIGHT

## DESCRIPTION PULLEY

PULLEY	20 m/m
CODE	RF25109
MATERIALS	STAINLESS STEEL
	NYLON
	CARBON ACETAL
BEARING	DELRIN®
WEIGHT	14 G/PIECE

## TECHNICAL SPECIFICATIONS



DIMENSIONS	m/m
A	20
B	33
Ø	5 max
LOAD	KG
WORKING LIMIT	200
BREAKING	400



## THREAD

### SAIL MAKING

NAME	SERAFIL
N° OF REFERENCE	60
MATERIAL	POLYESTER
TYPE OF FINISH	SILK
LINEAR DENSITY	NM 61 / 3 (DTEX 163 * 3)
BREAKING STRENGTH	3,000 CN
ELONGATION	17,00%

### QUALITIES SERAFIL

SOLIDITY ARTIFICIAL LIGTH	ISO 105 B02 > 5 - 6
SOLIDITY SWEAT	ISO 105 E04 > 4
SOLIDITY WASHING	ISO 105 C04 > 3
SOLIDITY GRAZE IN DRY	ISO 105 X12 > 4
SOLIDITY WASHING IN DRY	ISO 105 D01 > 3 - 4

TREATMENT WATER REPELLENT	WR
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### RISERS MAKING

NAME	COATS BONDED C.F.P.
N° OF REFERENCE	V138
MATERIAL	POLYESTER
TYPE OF FINISH	SILK
BREAKING STRENGTH	9,5 KG
ELONGATION	19%

## RISERS

### RISERS

N° OF REFERENCE	G-R 22
MATERIAL	POLYESTER
WIDTH	22 M/M
THICKNESS	1,52 M/M
BREAKING STRENGTH	1100 DAN
ELONGATION	MAX. 15%
WEIGHT	25 G/M
COLOR	BLACK

### COLOR INDICATOR

N° OF REFERENCE	IC-G 1-2
MATERIAL	POLYESTER
WIDTH	70 M/M
THICKNESS	0,80 M/M
BREAKING STRENGTH	130 DN
ELONGATION	35 %
WEIGHT	32 G * L.M.
COLOR	GREEN

### LOOPS

N° OF REFERENCE	LKI - 12
MATERIAL	NYLON
WIDTH	12 M/M
BREAKING STRENGTH	84 KG
COLOR	WHITE



**TAKOO 6**



**Niviuk Paragliders**

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