

ROLLER 2

Technical *specifications*



IVIUK BEYOND
THE GLIDE

TECHNICAL SPECIFICATIONS

			14	16	18	20
Cells	Number		35	35	35	35
Aspect ratio	Flat		4.2	4.2	4.2	4.2
	Projected		3.6	3.6	3.6	3.6
Area	Flat	m ²	14	16	18	20
	Projected	m ²	12.41	14.19	15.98	17.76
Span	Flat	m	7.82	8.36	8.87	9.36
Chord	Maximum	m	2.14	2.23	2.43	2.56
Lines	Total	m	185	199	211	223
	Main		2/3/2	2/3/2	2/3/2	2/3/2
Risers	Number	3	A/B/C	A/B/C	A/B/C	A/B/C
	Speed-bar	mm	90	90	90	90
	Trimmers	mm	100	100	100	100
Glider weight		kg	3	3.3	3.6	3.9
Total weight in flight	Min-max	kg	60-90	70-100	80-110	90-120
Certification			EN 926-1	EN 926-1	EN 926-1	EN 926-1

MATERIALS

CANOPY	FABRIC CODE	SUPPLIER
UPPER SURFACE	N30 DMF	DOMINICO TEX CO (KOREA)
BOTTOM SURFACE	N20 DMF	DOMINICO TEX CO (KOREA)
RIBS	30 DFM	DOMINICO TEX CO (KOREA)
DIAGONALS	30 DFM	DOMINICO TEX CO (KOREA)
LOOPS	LKI - 10	KOLON IND. (KOREA)
REINFORCEMENT LOOPS	W-420	D-P (GERMANY)
TRAILING EDGE REINFORCEMENT	MYLAR	D-P (GERMANY)
REINFORCEMENT RIBS	LTN - 0.8 STICK	SPORTWARE CO. (CHINA)
THREAD	SERAFIL 60	AMAN (GERMANY)
SUSPENSION LINES	FABRIC CODE	SUPPLIER
UPPER CASCADES	DC - 60	LIROS GMHB (GERMANY)
MIDDLE CASCADES	DC - 60	LIROS GMHB (GERMANY)
MIDDLE CASCADES	PPSL - 120	LIROS GMHB(GERMANY)
MIDDLE CASCADES	TNL - 140	TEIJIM LIMITED (JAPAN)
MAIN	PPSL - 120	LIROS GMHB(GERMANY)
MAIN	TNL - 280	TEIJIM LIMITED (JAPAN)
MAIN	TNL - 400	TEIJIM LIMITED (JAPAN)
MAIN BREAK	TARAX - 200	EDELRID (GERMANY)
THREAD	SERAFIL 60	AMAN (GERMANY)
RISERS	FABRIC CODE	SUPPLIER
MATERIAL	G - R 19	TECNI SANGLES (FRANCE)
COLOR INDICATOR	PAD	TECNI SANGLES (FRANCE)
THREAD	V138	COATS (ENGLAND)
MAILLONS	MRI4	ANSUNG PRECISION (KOREA)
PULLEYS	PY - 1304 - 2	ANSUNG PRECISION (KOREA)

OK



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.

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.

- 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.

- 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.

RISER PLAN



COLORS

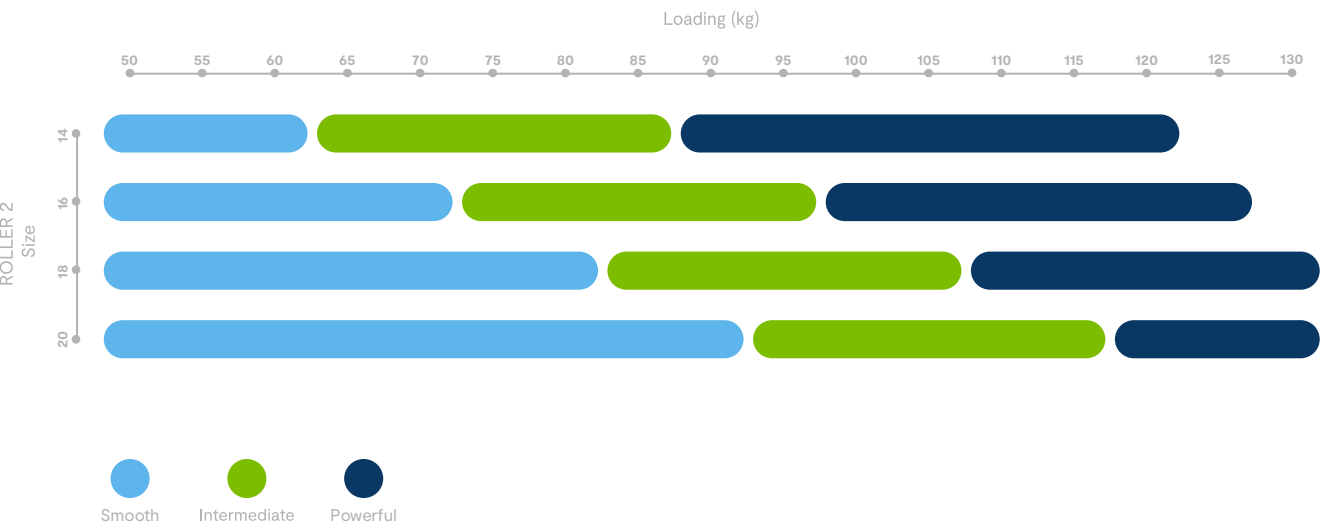


ILLUSION	SB1	PURPLE	TOP	REF: 240
	SB2	WHITE	BOTTOM	REF: 001
	SB3	BLACK	HORNS	REF: 102
	SB4	GOLD	PRINCIPAL SHADOW	REF: 939



BELO	SB1	SPECTRA GREEN	TOP	REF: 17-5335
	SB2	WHITE	BOTTOM	REF: 001
	SB3	BLACK	HORNS	REF: 102
	SB4	GOLD	PRINCIPAL SHADOW	REF: 939

WING LOAD



LINES

ROLLER 2 14

REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm
A					B					C					D					BRAKE				
a1	DC	60	WHT	1264	b1	DC	60	WHT	1250	c1	DC	60	WHT	1027	d1	DC	60	WHT	988	br1	DC	60	WHT	1041
a2	DC	60	WHT	1199	b2	DC	60	WHT	1186	c2	DC	60	WHT	937	d2	DC	60	WHT	974	br2	DC	60	WHT	685
a3	DC	60	WHT	1179	b3	DC	60	WHT	1168	c3	DC	60	WHT	905	d3	DC	60	WHT	886	br3	DC	60	WHT	666
a4	DC	60	WHT	1175	b4	DC	60	WHT	1156	c4	DC	60	WHT	917	d4	DC	60	WHT	783	br4	DC	60	WHT	700
a5	DC	60	WHT	1175	b5	DC	60	WHT	1160	c5	DC	60	WHT	928						br5	DC	60	WHT	695
a6	DC	60	WHT	1214	b6	DC	60	WHT	1203	c6	DC	60	WHT	989						br6	DC	60	WHT	645
a7	DC	60	WHT	1131	b7	DC	60	WHT	1110	c7	DC	60	WHT	917						br7	DC	60	WHT	444
a8	DC	60	WHT	1089	b8	DC	60	WHT	1075	c8	DC	60	WHT	860						br8	DC	60	WHT	546
a9	DC	60	WHT	1078	B9	DC	60	WHT	1070	c9	DC	60	WHT	846										
a10	DC	60	WHT	997	b10	DC	60	WHT	982	c10	DC	60	WHT	785										
a11	DC	60	WHT	970	b11	DC	60	WHT	963	c11	DC	60	WHT	775										
a12	DC	60	WHT	969	b12	DC	60	WHT	969	c12	DC	60	WHT	799										
a13	DC	60	WHT	1310	b13	DC	60	WHT	1286	c13	DC	60	WHT	1341										
a14	DC	60	WHT	1247	b14	DC	60	WHT	1238	c14	DC	60	WHT	1317										
2A1	PPSL	120	GREEN	866	2B1	PPSL	120	BLUE	850	2C1	PPSL	120	BLUE	573						2BR1	TNL	140	RED	729
2A2	PPSL	120	GREEN	867	2B2	PPSL	120	BLUE	862	2C2	PPSL	120	BLUE	557						2BR2	TNL	140	RED	637
2A3	PPSL	120	GREEN	1189	2B3	PPSL	120	BLUE	1165	2C3	PPSL	120	BLUE	811						2BR3	TNL	140	RED	632
2A4	PPSL	120	GREEN	1230	2B4	PPSL	120	BLUE	1226	2C4	PPSL	120	BLUE	845						2BR4	TNL	140	RED	845
2STAB1	DC	60	WHT	440																				
2STAB2	DC	60	WHT	476																				
3A1	TNL	400	GREEN	2305	3B1	TNL	400	BLUE	2261	3C1	TNL	400	BLUE	2870						3BR1	TNL	140	RED	1258
3A2	TNL	400	GREEN	2064	3B2	TNL	280	BLUE	2057	3C2	TNL	400	BLUE	2696						3BR2	TNL	140	RED	1212
					STAB	PPSL	120	RED	2373											BRMAIN TARAX 200 RED 2300				
																				KNOT POINT: 2100				

LINES TECHNICAL DATA

ROLLER 2 16

REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm					
A					B					C					D					BRAKE				
a1	DC	60	WHT	1350	b1	DC	60	WHT	1336	c1	DC	60	WHT	1098	d1	DC	60	WHT	1059	br1	DC	60	WHT	1110
a2	DC	60	WHT	1283	b2	DC	60	WHT	1269	c2	DC	60	WHT	1003	d2	DC	60	WHT	1042	br2	DC	60	WHT	731
a3	DC	60	WHT	1263	b3	DC	60	WHT	1251	c3	DC	60	WHT	970	d3	DC	60	WHT	950	br3	DC	60	WHT	711
a4	DC	60	WHT	1254	b4	DC	60	WHT	1234	c4	DC	60	WHT	978	d4	DC	60	WHT	840	br4	DC	60	WHT	749
a5	DC	60	WHT	1256	b5	DC	60	WHT	1240	c5	DC	60	WHT	991						br5	DC	60	WHT	742
a6	DC	60	WHT	1299	b6	DC	60	WHT	1287	c6	DC	60	WHT	1058						br6	DC	60	WHT	690
a7	DC	60	WHT	1209	b7	DC	60	WHT	1187	c7	DC	60	WHT	980						br7	DC	60	WHT	473
a8	DC	60	WHT	1165	b8	DC	60	WHT	1149	c8	DC	60	WHT	920						br8	DC	60	WHT	584
a9	DC	60	WHT	1154	b9	DC	60	WHT	1144	c9	DC	60	WHT	905										
a10	DC	60	WHT	1066	b10	DC	60	WHT	1049	c10	DC	60	WHT	839										
a11	DC	60	WHT	1038	b11	DC	60	WHT	1029	c11	DC	60	WHT	829										
a12	DC	60	WHT	1037	b12	DC	60	WHT	1037	c12	DC	60	WHT	855										
a13	DC	60	WHT	1401	b13	DC	60	WHT	1374	c13	DC	60	WHT	1433										
a14	DC	60	WHT	1334	b14	DC	60	WHT	1324	c14	DC	60	WHT	1408										
2A1	PPSL	120	GREEN	922	2B1	PPSL	120	BLUE	905	2C1	PPSL	120	BLUE	609						2BR1	TNL	140	RED	778
2A2	PPSL	120	GREEN	930	2B2	PPSL	120	BLUE	924	2C2	PPSL	120	BLUE	599						2BR2	TNL	140	RED	680
2A3	PPSL	120	GREEN	1270	2B3	PPSL	120	BLUE	1245	2C3	PPSL	120	BLUE	866						2BR3	TNL	140	RED	676
2A4	PPSL	120	GREEN	1316	2B4	PPSL	120	BLUE	1312	2C4	PPSL	120	BLUE	904						2BR4	TNL	140	RED	907
2STAB1	DC	60	WHT	471																				
2STAB2	DC	60	WHT	508																				
3A1	TNL	400	GREEN	2499	3B1	TNL	400	BLUE	2453	3C1	TNL	400	BLUE	3104						3BR1	TNL	140	RED	1343
3A2	TNL	400	GREEN	2249	3B2	TNL	280	BLUE	2241	3C2	TNL	400	BLUE	2923						3BR2	TNL	140	RED	1297
					STAB	PPSL	120	RED	2580											BRMAIN	TARAX	200	RED	2486
																				KNOT POINT:				2286

LINES

ROLLER 2 18

REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm
A					B					C					D					BRAKE				
a1	DC	60	WHT	1432	b1	DC	60	WHT	1416	c1	DC	60	WHT	1164	d1	DC	60	WHT	1126	br1	DC	60	WHT	1176
a2	DC	60	WHT	1361	b2	DC	60	WHT	1346	c2	DC	60	WHT	1065	d2	DC	60	WHT	1107	br2	DC	60	WHT	775
a3	DC	60	WHT	1342	b3	DC	60	WHT	1329	c3	DC	60	WHT	1031	d3	DC	60	WHT	1010	br3	DC	60	WHT	753
a4	DC	60	WHT	1328	b4	DC	60	WHT	1307	c4	DC	60	WHT	1036	d4	DC	60	WHT	893	br4	DC	60	WHT	795
a5	DC	60	WHT	1331	b5	DC	60	WHT	1314	c5	DC	60	WHT	1050						br5	DC	60	WHT	787
a6	DC	60	WHT	1378	b6	DC	60	WHT	1366	c6	DC	60	WHT	1123						br6	DC	60	WHT	733
a7	DC	60	WHT	1282	b7	DC	60	WHT	1259	c7	DC	60	WHT	1039						br7	DC	60	WHT	501
a8	DC	60	WHT	1236	b8	DC	60	WHT	1219	c8	DC	60	WHT	976						br8	DC	60	WHT	620
a9	DC	60	WHT	1224	b9	DC	60	WHT	1214	c9	DC	60	WHT	960										
a10	DC	60	WHT	1130	b10	DC	60	WHT	1112	c10	DC	60	WHT	889										
a11	DC	60	WHT	1101	b11	DC	60	WHT	1092	c11	DC	60	WHT	879										
a12	DC	60	WHT	1100	b12	DC	60	WHT	1100	c12	DC	60	WHT	907										
a13	DC	60	WHT	1487	b13	DC	60	WHT	1458	c13	DC	60	WHT	1520										
a14	DC	60	WHT	1415	b14	DC	60	WHT	1405	c14	DC	60	WHT	1493										
2A1	PPSL	120	GREEN	975	2B1	PPSL	120	BLUE	957	2C1	PPSL	120	BLUE	643						2BR1	TNL	140	RED	824
2A2	PPSL	120	GREEN	989	2B2	PPSL	120	BLUE	982	2C2	PPSL	120	BLUE	637						2BR2	TNL	140	RED	722
2A3	PPSL	120	GREEN	1346	2B3	PPSL	120	BLUE	1320	2C3	PPSL	120	BLUE	918						2BR3	TNL	140	RED	717
2A4	PPSL	120	GREEN	1397	2B4	PPSL	120	BLUE	1393	2C4	PPSL	120	BLUE	960						2BR4	TNL	140	RED	965
2STAB1	DC	60	WHT	499																				
2STAB2	DC	60	WHT	538																				
3A1	TNL	400	GREEN	2682	3B1	TNL	400	BLUE	2633	3C1	TNL	400	BLUE	3324						3BR1	TNL	140	RED	1423
3A2	TNL	400	GREEN	2422	3B2	TNL	280	BLUE	2414	3C2	TNL	400	BLUE	3138						3BR2	TNL	140	RED	1377
					STAB	PPSL	120	RED	2775											BRMAIN	TARAX	200	RED	2661
																						KNOT POINT:		2461

LINES

ROLLER 2 20

[illegible]

SUSPENSION

MATERIAL CODE		DC	PPSL	TNL	TNL	TNL	TARAX
STRENGTH CODE		060	120	140	280	400	200
DIAMETER mm	ø	0,6	1,15	1,4	1,8	2,3	1,7
CORE MATERIAL		DYNEEMA	DYNEEMA	TECHNORA	TECHNORA	TECHNORA	DYNEEMA
SLEEVE MATERIAL		NO	POLYESTER	POLYESTER	POLYESTER	POLYESTER	POLYESTER
WEIGHT G/M	TOTAL	0,24	1	1,2	2,7	4	2
BREAKING STRENGTH daN	MINIMUM	60	120	140	280	460	200
	MAXIMUM	84	159	160	320	470	
STRENGTH AFTER 5.000 BENDING CYCLES	TEST EN	74	135	76,1	134,7	160,1	
ELONGATION AT	5 daN en %			0,2	0,2	0,05	0,1-0,3
	10 daN en %	0,43	0,2	0,3	0,3	0,1	0,2-0,6
	15 daN en %			0,5	0,4	0,2	0,3-0,7
	20 daN en %			0,6	0,4	0,2	0,3-0,9
	25 daN en %			0,8	0,5	0,3	0,4-1
	30 daN en %	1,2	0,6	1,5	0,9	0,6	
	75 daN en %			2,3	1,3	0,8	0,8-1,7
	100 daN en %			2,7	1,7	1,1	1,2-2
	125 daN en %			3,2	2	1,4	
	150 daN en %				2,3	1,7	1,6-2,4
	175 daN en %				2,7	2	
	200 daN en %				2,8	2,2	2-2,8
ELONGATION MAX. BREAKING STRENGTH %		3,2	2	3,4	4,1	4,6	

LINE MEASUREMENTS

ROLLER 2 - 14

LINES HEIGHT MM					
	A	B	C	D	br
1	4425	4351	4460	4421	5128
2	4360	4287	4370	4391	4772
3	4340	4269	4338	4383	4661
4	4337	4269	4334	4314	4695
5	4337	4273	4345		4639
6	4376	4316	4406		4589
7	4374	4322	4414		4601
8	4332	4287	4357		4703
9	4321	4282	4343		
10	4281	4255	4316		
11	4254	4236	4306		
12	4253	4242	4330		
13	4118	4094	4149		
14	4091	4082	4161		
RISERS LENGHT MM					
	A	B	C		
	480	480	480	STANDARD	
	480	507	580	TRIMMER OPENED	
	390	445	580	ACCELERATED	

ROLLER 2 - 16

LINES HEIGHT MM					
	A	B	C	D	br
1	4761	4684	4801	4762	5517
2	4694	4617	4706	4735	5138
3	4674	4599	4673	4729	5020
4	4673	4601	4671	4657	5058
5	4675	4607	4684		5001
6	4718	4654	4751		4949
7	4718	4663	4759		4963
8	4674	4625	4699		5074
9	4663	4620	4684		
10	4621	4592	4656		
11	4593	4572	4646		
12	4592	4580	4672		
13	4447	4420	4479		
14	4417	4407	4491		
RISERS LENGHT MM					
	A	B	C		
	480	480	480	STANDARD	
	480	507	580	TRIMMER OPENED	
	390	445	580	ACCELERATED	

LINE MEASUREMENTS

ROLLER 2 - 18

LINES HEIGHT MM					
	A	B	C	D	br
1	5079	4996	5121	5083	5884
2	5008	4926	5022	5058	5483
3	4989	4909	4988	5056	5359
4	4989	4912	4987	4981	5401
5	4992	4919	5001		5342
6	5039	4971	5074		5288
7	5040	4983	5085		5304
8	4994	4943	5022		5423
9	4982	4938	5006		
10	4939	4909	4977		
11	4910	4889	4967		
12	4909	4897	4995		
13	4756	4727	4789		
14	4723	4713	4801		
RISERS LENGHT MM					
	A	B	C		
	480	480	480	STANDARD	
	480	507	580	TRIMMER OPENED	
	390	445	580	ACCELERATED	

ROLLER 2 - 20

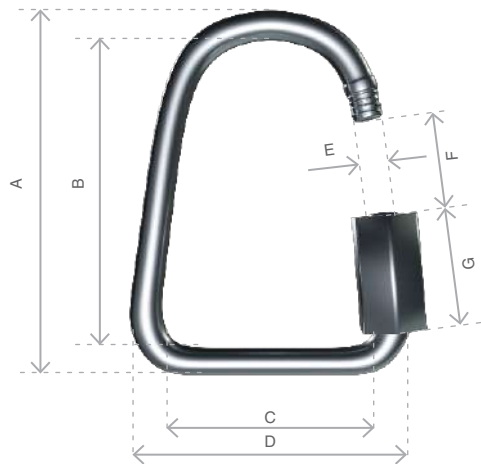
LINES HEIGHT MM					
	A	B	C	D	br
1	5378	5294	5435	5397	6229
2	5305	5221	5331	5373	5808
3	5285	5204	5297	5374	5679
4	5286	5207	5296	5296	5725
5	5291	5216	5313		5665
6	5341	5271	5390		5610
7	5346	5285	5403		5628
8	5298	5244	5335		5753
9	5286	5239	5319		
10	5242	5209	5290		
11	5211	5188	5279		
12	5211	5197	5309		
13	5048	5018	5088		
14	5014	5003	5101		
RISERS LENGHT MM					
	A	B	C		
	480	480	480	STANDARD	
	480	507	580	TRIMMER OPENED	
	390	445	580	ACCELERATED	

MAILLON & PULLEY

DESCRIPTION

MAILLON	DELTA
CODE	MRI4
MATERIAL	STAINLESS STEEL
SIZE	4,3 m/m
WEIGHT	12 G/PIECE
QUANTITY	6 PIECES
INSERTS	2 GREEN / 4 BLACK

TECHNICAL SPECIFICATIONS



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

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

THREAD

WING 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%

PROPIETIES 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 19
MATERIAL	POLYESTER
WIDTH	19 M/M
THICKNESS	1,6 M/M
BREAKING STRENGTH	850 KG
ELONGATION	MAX. 12%
WEIGHT	23 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 - 10
MATERIAL	NYLON
WIDTH	10 M/M
BREAKING STRENGTH	84 KG
ELONGATION	30 %
WEIGHT	5,5 G/M
COLOR	WHITE



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