

Test Report

This test report describes the test results of the below mentioned paragliding harness.

All the tests were carried out by:

Air Turquoise SA, official test laboratory of Switzerland



Standards

Tests were carried out in conformity with the following standards:

- 2. DV LuftGerPV §1, Nr. 7 c (*note: in what follows this will be abbreviated by "LTF")
- European Standard EN1651 September 1999 (*note in what follows this will be abbreviated by "EN")
- European Standard EN12491 September 2001 (*note in what follows this will be abbreviated by "EN12491")

Harness details

Manufacturer: Harness model: Size: Harness Weight: Maximum certified pilot Impact protection type:	Sky Paragliders a.s. Excite 3 Medium 4.95 kg 100 kg Mousse bag 17 cm sa
Harness type:	ABS
Test responsible:	Alain Zoller
Test place:	Villeneuve
Test date:	May 02, 2011
Test room temp & humidity:	20,6° C; 27 %rel
Certification number EN:	PH 021.2011
Certification number LTF:	GZ 021.2011

The management system governing the provision of this test service is ISO 9001 certified:



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Test summary

A. STRUCTURAL STRENGHT TESTS

A test plan was set up in order to execute the different tests in an efficient order. The table below summarizes this test plan together with the applicable standards and results.

	Standa	ard Ref.	٩	Anch	oring	For	ces	Min.	
TESTED ?	EN	LTF	TEST setu	Attach - ment points	Dummy	Req. Load in g	Min. force [N]	Test durati on [sec]	Result
✓ ✓	5.3.2.1	4.2.1.a	Default flying position	2 main attachment points	Hip fixated	6g 9g 15g	6000 9000 15000	10 5	ОК
✓ ✓	5.3.2.7	4.2.1.b	Default, landing position	2 main att. points	Hip fixated, landing conf.	6g 15g	6000 15000	10 5	OK OK
	5.3.2.4	4.2.1.a rescue 4.2.1.b	Rescue Rescue,	2 rescue att. Pnts.	Hip fixated Hip fixated,	9g 15g 6g	9000 15000 6000	10 5 10	ОК ОК ОК
~	5.3.2.3	Tescue	One riser	ONE main att.	1 central hip fixation	6g	6000	10	ОК
	5.3.2.5	4.2.1.d	Towing	2 main att. + 2 tow att.	None	3g 5g	3000 5000	10	n∕t
~	5.3.2.6		Default, Negatif	One main att.	Head fix.	4.5g	4500	10	ОК
✓ ✓		4.2.1.c 4.2.1.c rescue	Upside down Upside down	2 main att. downw. 2 rescue att. downw.	Head fix.	6g 6g	6000 6000	10 10	ОК ОК
	A A A A A A A A A A A A A A A A A	S2 5.3.2.1 ✓ 5.3.2.2 ✓ 5.3.2.2 ✓ 5.3.2.7 ✓ 5.3.2.7 ✓ 5.3.2.4 ✓ 5.3.2.3 ✓ 5.3.2.5	SQ 5.3.2.1 4.2.1.a 5.3.2.2 4.2.1.b 5.3.2.7 4.2.1.b 5.3.2.7 4.2.1.b 5.3.2.7 4.2.1.b 5.3.2.7 4.2.1.b 5.3.2.7 4.2.1.b 5.3.2.4 4.2.1.b 5.3.2.5 4.2.1.b 5.3.2.3 4.2.1.b 5.3.2.5 4.2.1.d 5.3.2.5 4.2.1.d 5.3.2.5 4.2.1.d 5.3.2.6 4.2.1.c	SPS.3.2.1A.2.1.aDefault flying position5.3.2.24.2.1.aDefault, flying positionImage: Strain s	ENLIFENAttach - ment points5.3.2.14.2.1.aDefault flying position2 main attachment points5.3.2.24.2.1.bDefault, landing position2 main att. points5.3.2.74.2.1.bDefault, landing position2 main att. points5.3.2.74.2.1.bDefault, landing position2 main att. points5.3.2.74.2.1.a rescueRescue, landing2 main att. points5.3.2.44.2.1.b rescueRescue, landing0NE main att.5.3.2.30ne riserONE main att.5.3.2.54.2.1.d rescueTowing2 main att. + 2 tow att.5.3.2.6Default, NegatifOne main att. down2 main att. downw.4.2.1.cUpside down2 main att. down2 rescue att. downw.	ENLirENAttach - ment pointsDummy5.3.2.1Attach - ment points4.2.1.aDefault flying position2 main attachment pointsHip fixated5.3.2.24.2.1.aDefault flying position2 main attachment pointsHip fixated, landing conf.4.2.1.bDefault, landing position2 main att. pointsHip fixated, landing conf.5.3.2.74.2.1.aRescue rescue2 rescue att. Pnts.Hip fixated, landing conf.4.2.1.bRescue, landing2 rescue att. Pnts.Hip fixated, landing conf.5.3.2.3One riserONE main att.1 central hip fixation5.3.2.34.2.1.dTowing Default, None2 main att. + 2 tow att.None5.3.2.6Attach Attach LandingOne main att. downHead fix.4.2.1.cUpside down2 main att. downw.Head fix.	L b bENL I LE b CAttach - ment pointsDummy Load in g✓5.3.2.1Jefault 4.2.1.aDefault flying position2 main attachment pointsHip fixated 9g 15g6g 9g 9g 15g✓5.3.2.2Jefault 4.2.1.bDefault flying position2 main attachment pointsHip fixated (anding conf.)6g 9g 15g✓5.3.2.7Jefault 4.2.1.aDefault, landing position2 main att. pointsHip fixated, (anding conf.)6g✓5.3.2.7Jefault rescueRescue landing2 rescue att. Phts.Hip fixated, (anding conf.)9g✓5.3.2.3One riserONE main att.1 central hip fixation6g✓5.3.2.5Jefault, rescueDefault, None3g✓5.3.2.6Default, NoneOne main att.1 central hip fixation6g✓5.3.2.6Default, NoneOne main att.4.2.1.d (anding conf.)3g✓5.3.2.6Default, NoneOne main att.Head fix.4.5g✓5.3.2.6Default, NegatifOne main att.Head fix.4.5g✓5.3.2.6Upside down2 rescue att.Head fix.6g	LeftLiffLiffAttach - ment pointsDummyKeq. Load in gMin. force g $<$ 5.3.2.1Default flying position2 main attachment pointsHip fixated points6g6000 9g $<$ 5.3.2.2Default, flanding position2 main attachment pointsHip fixated, landing conf.6g6000 $<$ 4.2.1.bDefault, landing position2 main att. pointsHip fixated, landing conf.6g6000 $<$ 4.2.1.bDefault, rescue2 main att. pointsHip fixated, landing conf.6g6000 $<$ 4.2.1.bRescue, landing2 rescue att. Phts.Hip fixated, landing conf.6g6000 $<$ 5.3.2.3One riserONE main att.1 central hip fixation6g6000 $<$ 5.3.2.5Cone riserONE main att.1 central hip fixation6g6000 $<$ 5.3.2.6Default, NegatifOne main att.Head fix.4.5g4500 $<$ 5.3.2.6Default, NegatifOne main att.Head fix.4.5g4500 $<$ 4.2.1.cUpside down2 main att. downw.Head fix.6g6000	LeftLeftEq.Attach - ment pointsDummyReq. LoadMin. force in gMultation in g \times 5.3.2.1 \square Default flying position2 main attachment points Hip fixated $15g$ $6g$ $9g$ $9g000$ 60000 10 \times 5.3.2.2 \square \square \square 2 main attachment position Hip fixated $15g$ $6g$ $15g$ 60000 100 10 \checkmark $A.2.1.b$ $5.3.2.7$ \square \square 2 main att. position Hip fixated, 10000 $6g$ 60000 10 \checkmark $A.2.1.b$ rescue \square \square Position 2 main att. position Hip fixated, 100000 $6g$ 60000 10 \checkmark $A.2.1.b$ rescue \square Rescue, landing 2 main att. Position Hip fixated, $1anding conf.9g9000000000000000000000000000000000000$

B. HARNESS PROTECTION SHOCK TEST

Most paraglider harnesses are equipped with a protection device that damps the shock on the pilot's spine during a hard landing.

Shock impact tests have to be executed on these harnesses in order to prove the damping characteristics of it.

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		Standa		Ancl	horing		Impac	t E	of	
		rd Ref.:	0			t in g	impact	ation c (yr	ation c (y	
Test ID	TESTED ?	LTF	TEST setup	Attach- ment points	Dummy	Max. tolerat peak impact	Max Peak in measured	l mpact dura + 38 g (if an recorded:	Impact dura +20 g (if an recorded:	Result
PRO TECT 1	~	5.1.1	Default flying position	the harness	v is attached to s like a pilot in ight.		34.46	0	0.018	ОК

C. RESCUE DEPLOYMENT RESISTANCE TEST

The deployment of the rescue system has to be ensured in all circumstances of flight. This test is to verify whether the force needed to deploy is in between reasonable limits.

	ć	Standa rd Ref.	tup	Ancl	noring	Force for sir	ngle han i wax.	d deployment	
Test ID	TESTED 3	LTF	TEST se	Attach- ment points	Dummy	Min. force [N]	force [N]	Resistance measured [daN]	Result
Resc depl	~	6.1.5	Default flying position	attached to like a pil	ponisble is the harness ot in flight. ny required)	20 N	70 N	n/t	ОК

D. RESCUE DEPLOYMENT STRAP STRENGHT TEST

The connection between handgrip and inner container has to have sufficient load capacity/structural strength in any situation that may arise during normal use. During this test is verified, whether this connection fulfill the requirements.

Test ID	TESTED ?	Standa LTF	ard Ref. EN 12491	TEST setup	Minimum force [N]	Min. Test durati on [s]	Breaking resistance measured	Result
Resc strap	~	6.1.8	5.3.2	Connection strap in tensile testing machine	700N	10	n/t	ОК

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After careful examination as explained in above mentioned test reports (from page 2 to page 18), the undersigned persons declare that the harness:

paragliding by air turguoise

Sky Paragliders a.s. Excite 3 Medium

P »

Complied with:

para-test.com

• European Standard EN 1651 September 1999

And / or (if tested)

• European Standard EN 12491 March 2001

And / or (if tested)

• 2. DV LuftGerPV §1, Nr. 7 c

Villeneuve, May 02, 2011

Place, Date

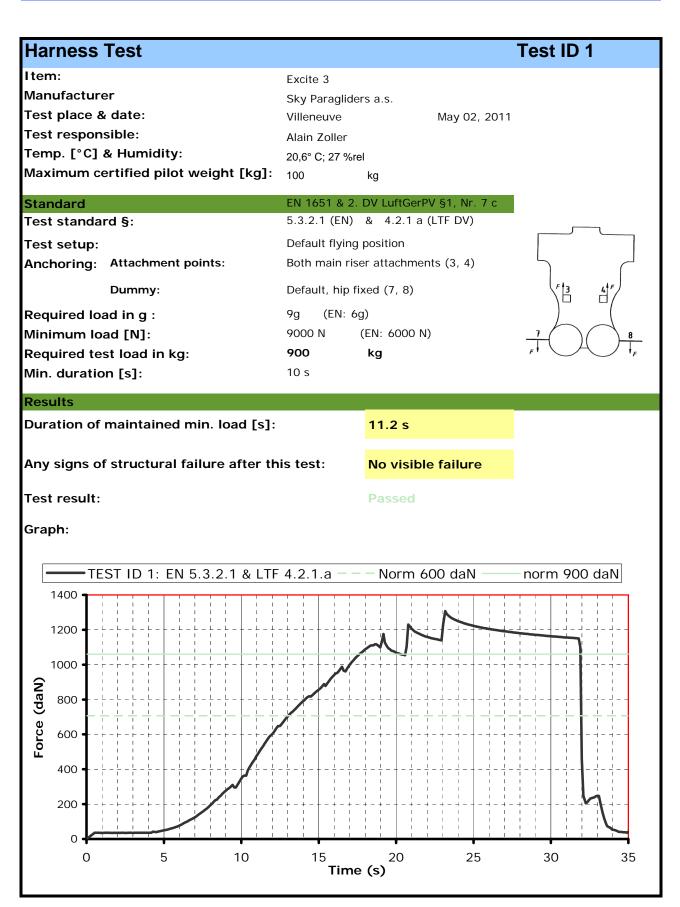
Alain Zoller Test responsible

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Annex: detailed test reports





Harness Test	Test ID 2
Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Excite 3 Sky Paragliders a.s. Villeneuve May 02, 2011 Alain Zoller 20,6° C; 27 %rel 100 kg
Standard Test standard §: Test setup: Anchoring: Attachment points: Dummy: Required load in g: Min load [N]: Required test load in kg: Min. duration [s]: Results	EN 1651 $5.3.2.2$ Default flying positionBoth main riser attachments (3, 4)Default, hip fixed (7, 8)151515 000 N 15001500kg 5s
Duration of maintained min. load [s]: Any signs of structural failure after thi Test result: Graph:	Passed
TEST ID 2: EN	Norm 1500 daN
25.0 45.0 65.0) 85.0 105.0 125.0 Time (s)



Harness Test			Test ID 3
Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Excite 3 Sky Paragliders a Villeneuve Alain Zoller 20,6° C; 27 %rel 100	.s. May 02, 2011 kg	
Standard	2. DV LuftGerPV §	§1, Nr. 7 c	
Test standard §: Test setup:	4.2.1.b Flying position be board (11) in land straps (10) closed		
Anchoring: Attachment points: Dummy:	Both of the main attached (3 and 4 Default, hip fixed		3/4
Required load in g: Min load [N]: Required test load in kg:	6 6000 N 600	g kg	7/8 1
Min. duration [s]:	10 s		
Results Duration of maintained min. load [s]:		23 s	
Any signs of structural failure after thi Test result: Graph:	s test:	No visible failure Passed	
(Nep 900 800 700 600 500 400 300 200 100 5 10 15 20		30 35 4	500 daN



Harness Test	Test ID 4
I tem: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Excite 3 Sky Paragliders a.s. Villeneuve May 02, 2011 Alain Zoller 20,6° C; 27 %rel 100 kg
Standard	EN 1651
Test standard §:	EN 5.3.2.7
Test setup: Anchoring: Attachment points:	Flying position before landing: seat board (11) in landing position, leg straps (10) closed. Both of the main riser attachments
Dummy:	attached (3 and 4); Default, hip fixed (7, 8)
Required load in g:	15 g
Min load [N]:	15 000 N
Required test load in kg:	1500 kg
Min. duration [s]:	5 s
Results	
Duration of maintained min. load [s]:	7.2 s
Any signs of structural failure after thi	is test: No visible failure
Test result:	Passed
Graph:	
TEST ID 4: EN 5	5.3.2.7 — Norm 1500 daN
1600	
1400	╶┶╶┥╴┽╴┾╶┝╶┥╴┥╴┽╶┶╶┽╶┥╴┥╴┥╴┥╴┥┨┟╴┶╶┵╴┽╴┾╶┝╶┶╴┽╸
1200	
a 1000 a	
800 •	
400	
200 •	
5.0 25.0 45.0	65.0 85.0 105.0 125.0 145.0
	Time (s)



Harness Test				Test ID 5
Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Excite 3 Sky Paraglide Villeneuve Alain Zoller 20,6° C; 27 %re 100		May 02, 2011	
Standard	2. DV LuftGer	DV 81 N	r 7 c	
Test standard §:	4.2.1.a rescue		1.70	Ft. 15
Test setup:	Rescue attach	iments		
Anchoring: Attachment points:	Rescue riser a	ittachme	nts (1,2)	
Dummy:	Hip fixed (7, 8	3)		
Required load in g: Min load [N]:	9 9 000 N	g		7
Required test load in kg: Min. duration [s]:	900 10 s	kg		FI F
Results				
Duration of maintained min. load [s]:		14 s		
Any signs of structural failure after thi	s test:	No visi	ble failure	
Test result:		Passed		
Graph:				
TEST ID 5: LTF 4.2	2.1.a.rescue			Norm 900 daN
1400 1200 1200 100 1000 1				
B 800 B B B B B B B B B B				
E E E E E E E E E E E E E E E E E E E	MMN		I I	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
400				
		10 10 10 10 10 10 10 10 10 10 10 10 10 1		
0 5 10 15	20 25	5 3	0 35	40 45 50



Harness Test				Test ID 6
Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Excite 3 Sky Paragliders Villeneuve Alain Zoller 20,6° C; 27 %rel 100	s a.s. (g	May 02, 2011	
Standard Test standard §:	EN 1651 5.3.2.4			EL LE
Test setup:	Rescue attachn	nents		
Anchoring: Attachment points:	Rescue riser at	tachments	s (1,2)	
Dummy:	Hip fixed (7, 8)			
Required load in g:	15 g	g) (
Min load [N]:	15 000 N			7
Required test load in kg: Min. duration [s]:	1500 I 5 s	kg		$_{F}$
	5.5			
Results	_			
Duration of maintained min. load [s]:		7.2 s		
Any signs of structural failure after th	is test:	No visibl	le failure	
Test result:		Passed		
Graph:				
			Norm 15	00 doN
1800 - TEST ID 6: E	IN 5.3.2.4			
1600				
1400 •				
0 1000 •				
		⁻	'	
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			
400	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			-++
		+		
20.0 40.0 60.0 80	.0 100.0	120.0	140.0 1	60.0 180.0
20.0 40.0 60.0 80	.0 100.0 Time (140.0 I	00.0 100.0



Test ID 7 acite 3 sy Paragliders a.s. lleneuve May 02, 2011 ain Zoller ,6° C; 27 %rel 0 0 kg DV LuftGerPV §1, Nr. 7 c 2.1.b rescue 112 ying position before landing: seat bard (11) in landing position, leg raps (10) closed. 112 oth of the rescue riser attachments tached (1 and 2); g efault, hip fixed (7, 8) g 000 N kg 000 N kg 01 s 14.5 s test: No visible failure
2.1.b rescue ying position before landing: seat bard (11) in landing position, leg raps (10) closed. oth of the rescue riser attachments tached (1 and 2); efault, hip fixed (7, 8) g 000 N 00 kg 0 s 14.5 s
2.1.b rescue ying position before landing: seat bard (11) in landing position, leg raps (10) closed. oth of the rescue riser attachments tached (1 and 2); efault, hip fixed (7, 8) g 000 N 00 kg 0 s 14.5 s
A sard (11) in landing position, leg raps (10) closed. both of the rescue riser attachments tached (1 and 2); efault, hip fixed (7, 8) g 000 N DO kg 0 s 14.5 s
g 000 N 00 kg 0 s 14.5 s
000 N 00 kg 14.5 s
Passed
2.1.b.rescue — Norm 600 daN
⊢ – I



Harness TestTest ID 8Item:Excite 3ManufacturerSky Paragliders a.s.Test place & date:VilleneuveMay 02, 2011Test responsible:Atain ZollerTemp. [°C] & Humidity: $20,6^{\circ}$ C; 27 %relMaximum certified pilot weight [kg]:100KgStandardEN 1651Test standard §: $5.3.2.3$ Test standard §: $5.3.2.3$ Test setup:Only one riser attachedAnchoring:Attachment points:Dummy:Hip fixed (7, 8 -> 12)Required load in g:66gMin. duration [s]:10 sResultsItalian effect this test:Duration of maintained min. load [s]:13.3 sAny signs of structural failure after this test:No visible failureTest result:PassedGraph:TEST ID 8: EN 5.3.2.3
Test standard §: $5.3.2.3$ Test setup:Only one riser attachedAnchoring:Attachment points:Dummy:Hip fixed (7, 8 -> 12)Required load in g:6g600 NRequired test load in kg:600 kgMin. duration [s]:10 sResults13.3 sAny signs of structural failure after this test:No visible failureTest result:PassedGraph:Passed
Test setup:Only one riser attachedAnchoring:Attachment points:One main riser attachments (3)Dummy:Hip fixed (7, 8 -> 12)Required load in g:6gMin load [N]:6000 NRequired test load in kg:600kgMin. duration [s]:10 sResultsIn sDuration of maintained min. load [s]:13.3 sAny signs of structural failure after this test:No visible failureTest result:PassedGraph:Image: Structural failure after this test:Passed
Anchoring: Attachment points:One main riser attachments (3)Dummy:Hip fixed $(7, 8 \rightarrow 12)$ Required load in g:6gMin load [N]:6000 NRequired test load in kg:600kg10 sResults10 sDuration of maintained min. load [s]:13.3 sAny signs of structural failure after this test:No visible failureTest result:PassedGraph:Passed
Dummy:Hip fixed (7, 8 -> 12)Required load in g:6gMin load [N]:6 000 NRequired test load in kg:600kgMin. duration [s]:10 sResultsDuration of maintained min. load [s]:13.3 sAny signs of structural failure after this test:No visible failureTest result:PassedGraph:
Required load in g: 6 g Min load [N]: 6 000 N Required test load in kg: 600 Min. duration [s]: 10 s Results Duration of maintained min. load [s]: 13.3 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph:
Min load [N]: 6 000 N Required test load in kg: 600 Min. duration [s]: 10 s Results Duration of maintained min. load [s]: Any signs of structural failure after this test: No visible failure Test result: Graph:
Min load [N]: 6 000 N Required test load in kg: 600 Min. duration [s]: 10 s Results Duration of maintained min. load [s]: Any signs of structural failure after this test: No visible failure Test result: Graph:
Min. duration [s]: 10 s Results Duration of maintained min. load [s]: 13.3 s Any signs of structural failure after this test: No visible failure Test result: Graph:
Results Duration of maintained min. load [s]: 13.3 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph:
Duration of maintained min. load [s]: 13.3 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph:
Any signs of structural failure after this test: No visible failure Test result: Passed Graph:
Test result: Passed Graph:
Test result: Passed Graph:
Graph:
700 600 500 500 400 500 500 500 500 5



Harness Test				Test ID 10
Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Excite 3 Sky Paraglide Villeneuve Alain Zoller 20,6° C; 27 %r 100	N	1ay 02, 2011	
Standard	EN 1651			
Test standard §:	5.3.2.6			1 F
Test setup:	Normal flying	position in N	IEGATIF	~~~°
Anchoring: Attachment points:	ONE of the mattached dow			5
Dummy:	Dummy anch (9)	ored at the h	ead position	3/4
Required load in g:	4.5	g		$\beta = 1$
Min load [N]: Required test load in kg:	4500 N 450	kg		\mathcal{Q}
Min. duration [s]:	450 10 s	ry.		F
Results				
Duration of maintained min. load [s]:		15.1 s		
Any signs of structural failure after thi	s test:	No visible	e failure	
Test result:		Passed		
Graph:				
TEST ID 10: EN	15326		– Norm 45	0 daN
500 q	13.3.2.0		NOITH 45	
450 -				
400 •				
350			· · · ·	
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Image: Second state 300 250 250 200 200			· · · · · · · · · · · · · · · · · · ·	
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0	55.0	75.0	95	5.0 115.0
	55.0 Time (75.0 (s)	95	5.0 115.0



Harness Test	Test ID 11
Harness Test Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]: Standard Test standard §: Test setup: Anchoring: Attachment points: Dummy:	Test ID 11 Excite 3 Sky Paragliders a.s. Villeneuve May 02, 2011 Alain Zoller 20,6° C; 27 %rel 100 kg 2. DV LuftGerPV §1, Nr. 7 c 4.2.1.c Pilot upside down flying position Both of the main riser attachments attached downwards (3 and 4); Dummy anchored at the head position (9)
Required load in g: Min load [N]: Required test load in kg: Min. duration [s]: Results	6 g 6 000 N 600 kg 10 s
Duration of maintained min. load [s]: Any signs of structural failure after this Test result: Graph:	14 s s test: No visible failure Passed
(NF) 900 900 900 900 900 900 900 900	4.2.1.c Norm 600 daN 0



Air Turquoise S.A. – Certification of paraglider equipment Tested in accordance with EN 1651 :1999 and 2.DV LuftGerPV§1, Nr. 7 c

Harness Test				Test ID 12	
Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Excite 3 Sky Paragliders Villeneuve Alain Zoller 20,6° C; 27 %rel 100	s a.s. kg	May 02, 2011		
Standard	2. DV LuftGerP	V §1, Nr. 7	C		
Test standard §:	4.2.1.c rescue			1 5 <u>2</u>	
Test setup: Anchoring: Attachment points:	Pilot upside dou Both of the res attached down	cue riser at	ttachments		
Dummy:	Dummy anchor (9)	ed at the h	nead position		
Required load in g: Min load [N]: Required test load in kg: Min. duration [s]:	6 6 000 N 600 10 s	g kg			
Results					
Duration of maintained min. load [s]:		13.8 s			
Any signs of structural failure after thi	is test:	No visib	le failure		
Test result:		Passed			
Graph:					
TEST ID 12: LTF	4.2.1.c.rescu	e	Norm	600 daN	
900 9000 900 900 9000 900 900 900 900 900 900 900 900 900 90					



Protector she	ock test	Test ID Protect
I tem: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:		Excite 3 Sky Paragliders a.s. Villeneuve May 02, 2011 Alain Zoller 20,6° C; 27 %rel 100 kg
Standard		2. DV LuftGerPV §1, Nr. 7 c
Test standard §:		5.1.1
Test setup:		Harness attached to protector test dummy, in a similar way like a real pilot in flight. Impact will be simulated by dropping the dummy from a certain height (with and without reserve). To simulate the "in-flight" conditions, the airbag is inflated with
		pressurized air equalling an airspeed of 7m/s. Inflation has to be stopped at least 5 sec before impact. Impact will be measured by an accelerometer mounted on the
		dummy. (Impact measured in g's)
Requirements :	Minimun height:	1.65 m (between lowest point test dummy and impact surface)
	Impact requirements:	+50g as absolute maximum;
		+38g during less than 7 msec;
	Repetitions:	+20g during less than 25 msec. The test will be performed 2 times, minimum 1 hour and maximum 2 hours after the first impact (with airbag protectors this pause is not necessary). The 2 Max-values should not differ more than 20%
Results Shock test 1:		
Impact at a heigh	nt of 1.65m:	34.46
	of+ 38 g (if any):	
•	of +20 g (if any):	0.018
<u>Shock test 2:</u>		<u>Δ<20 % ?</u>
Impact at a heigh	nt of 1.65m:	37.764
Impact duration of+ 38 g (if any):		
Impact duration	of +20 g (if any):	0.017
Test Result:		Passed



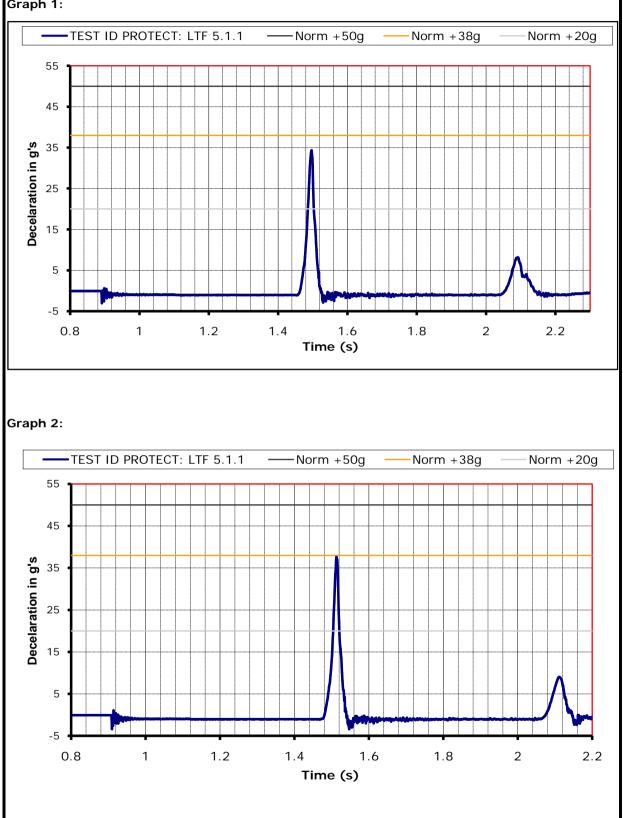
Air Turquoise SA Rte du Pré-au-Comte 8 | CH-1844 Villeneuve tel. +41 21 965 65 65 | mobile +41 79 202 52 30 info@para-test.com

Graph 1:

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PD

paragliding by air turguoise





Test ID resc **Rescue deployment resistance test** Item: Excite 3 Manufacturer Sky Paragliders a.s. Test place & date: Villeneuve May 02, 2011 Test responsible: Alain Zoller Temp. [°C] & Humidity: 20,6° C; 27 %rel Maximum certified pilot weight [kg]: 100 kg Standard 2. DV LuftGerPV §1, Nr. 7 c Test standard §: 6.1.5 Test setup: The deployment of the rescue system has to be ensured in all circumstances, especially with a damaged glider. The pilot has to be able to deploy the rescue chute with a single pull out of the outer container, single handed and in an anatomical favorable direction. In order to simulate this, the test responsible deploys the rescue seated in the harness. In a similar way as in real flight. The deployment resistance is approximately measured by the load cell, which is placed between the hand of the test responsible and the rescue hand grip. On the other hand inadvertent deployment has to be fairly remote. Therefore a shear link has to withstand a minimum load. Max force for single **Requirements:** hand deployment: approx. 70 N Min force to prevent unwanted opening: approx. 20 N Results Measured peak to peak required force 5.1 daN for deployment [daN]: Comment: Passed Graph: TEST ID rescue deployment 1 Max 7 daN - Min 2 daN 7 6 ^oulling force in daN 5 4 3 2 1 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.00000 1.10000 1.20000 1.30000 1.40000 Time (s)



Rescue deployment strap stre	ength test Test ID resc strap
I tem: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Excite 3 Sky Paragliders a.s. Villeneuve May 02, 2011 Alain Zoller 20,6° C; 27 %rel 100 kg
Standard	EN 12491 & 2. DV LuftGerPV §1, Nr. 7 c
Test standard §:	5.3.2 (EN 12491) & 6.1.8 (LTF)
Test setup:	The handgrip of the outer container has to be connected to the inner container with a removable loop in a way that it is possible to use the inner container with different types of outer containers. The connection between handgrip and inner container has to have sufficient load capacity/structural strength in any situation that may arise during normal operation. In order to verify this, the connection is tested on its tensile strength by a default tensile testing setup. In addition to this the breaking resistance will also be measured.
Requirements: Min. tensile strenght for 10 s: Results	700 N (= 70daN)
Duration of maintained load [s]:	10.1 s
Breaking resistance [daN]:	90
Comment: Graph:	Passed
TEST ID rescue stra	p strenght — Min 70 daN

