

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

AIR TURQUOISE SA certified by

## Flight test report: EN



Manufacturer	Aircross / Kontest GmbH	Certification number	PG_0481.2011
Address	Gut Grauhof 1 38644 Goslar Germany	Date of flight test	20. 09. 2011
Representative	None	Place of test	Villeneuve
Glider model	U-Sport Evo XL	Classification	D
Trimmer	no		

	no	mmer n
ot Thurnheer Claude Zoller Alain	Test pilo	
s Gin Gliders - Gingo II M Gin Gliders - Gingo II M	Harness	
5	Total weight in flight (kg	
C		nflation/Take-off
Overshoots, shall be slowed C Overshoots, shall be slowed down down to avoid a front collapse to avoid a front collapse		ng behaviour
No A No	e required	ecial take off technique req
A		anding
No A No	e required	ecial landing technique req
В	ht	peed in straight flight
Yes A Yes	km/h	n speed more than 30 km/
Yes A Yes	ontrols larger than 10 km/h	ed range using the contro
25 km/h to 30 km/h B 25 km/h to 30 km/h		imum speed
С		Control movement
	9 80 kg	x. weight in flight up to 80 i
not available 0 not available	ire / travel	nmetric control pressure /
	g to 100 kg	k. weight in flight 80 kg to
not available 0 not available	ıre / travel	nmetric control pressure /
	ter than 100 kg	k. weight in flight greater th
Increasing / 50 cm to 65 cm C Approximately constant / 50 cm to 65 cm	ire / travel	nmetric control pressure /
A	accelerated flight	itch stability exiting acc
Dive forward less than 30° A Dive forward less than 30°	it	e forward angle on exit
No A No		lapse occurs
A	ing controls during accelerated	Pitch stability operating o
No A No		lapse occurs
A	nping	Roll stability and damping
Reducing A Reducing		cillations
A	rals	stability in gentle spirals
Spontaneous exit A Spontaneous exit	aight flight	dency to return to straight
В	y banked turn	Behaviour in a steeply ba
More than 14 m/s B More than 14 m/s		k rate after two turns
D	lapse	Symmetric front collaps
Rocking back greater than 45° C Rocking back greater than 45°		ry
Recovery through pilot action in D Spontaneous in 3 s to 5 s less than a further 3 s		covery
Dive forward 30° to 60° / B Dive forward 0° to 30° / Keeping Course	it / Change of course	e forward angle on exit / C
No A No		scade occurs
		h accelerator
less than a further 3 s  Dive forward 30° to 60° / B Dive forward 0° to 30° / Keep course	it / Change of course	e forward angle on exit / C

Entry Rocking back greater than 45° C Rocking back greater than 45° C Recovery frough ploid action in less than a further 3 s Recovery frough ploid action in less than a further 3 s Recovery frough ploid action in less than a further 3 s Recovery frough ploid action in less than a further 3 s Recovery frough ploid action in less than a further 3 s Recovery frough ploid action in less than a further 3 s Recovery frough ploid action in less than a further 3 s Recovery Recovery Reproducts a furth or less than 3 s Recovery
less than a further 3 s less than 90° / Entering a keeping course cours
Keeping course         turn of less than 90°         A           Cascade occurs         No         A         A           11. Exiting deep stall (parachutal stall)         A         Ves         A         Yes         A           Deep stall achieved         Yes         A         Yes         A         Recovery         AD ive forward 0° to 30°         AD ive forward 148°         AD ive forward 148°         AD ive forward 148°         AD ive forward 148°         AD ive forward 30° to 60°         AD Ive forward 3
11. Exiting deep stall (parachutal stall) Deep stall achieved Yes Spontaneous in less than 3 s A Yes A Recovery Spontaneous in less than 3 s Dive forward or to 30° Dive forward or to 30° Dive forward or to 30° Changing course less than 45° A No
Deep stall achieved Yes A Yes A Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward angle on exit Dive forward 0° to 30° A Dive forward 00° to 180° Dive forward 180° Dive for
Recovery    Spontaneous in less than 3 s   A   Dive forward 0° to 30°   A   Change of course   Change of course   Changing course less than 45°   A   Changing course less than 45°   A   Cascade occurs   No   A   No   A   No   A     12. High angle of attack recovery   Spontaneous in less than 3 s   A   Spontaneous
Dive forward angle on exit  Dive forward 0° to 30°  A Dive forward 0° to 30° A Changing course Changing course less than 45° A No  A No  12. High angle of attack recovery A Spontaneous in less than 3 s A Spontaneous in less than 3 s A No  13. Recovery from a developed full stall C Dive forward angle on exit Dive forward angle on exit Dive forward 30° to 60° B Dive forward 30° to 60° B Dive forward 30° to 60° B Collapse A No collapse A No collapse A No collapse A No Cascade occurs (other than collapses) No A
Change of course Changing course less than 45° A Changing course less than 45° A Cascade occurs No A No A No A  12. High angle of attack recovery A Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A No A  13. Recovery from a developed full stall C C Dive forward angle on exit Collapse No collapse No collapse No collapse No collapse A No collapse A Rocking back Greater than 45° C G Greater than 45° C G Greater than 45° G Greater than 45° G G Greater than 45° G G G G G G G G G G G G G G G G G G G
Cascade occurs  No  A  12. High angle of attack recovery  Recovery  Spontaneous in less than 3 s A Spontaneous in less than 3 s A No  A  13. Recovery from a developed full stall  Dive forward angle on exit  Collapse  No collapse  No collapse  No collapse  No  Recking back  Line tension  14. Asymmetric collapse  With 50% collapse  Change of course until re-inflation / Maximum dive forward or roll angle of course  Less than 30° / Dive or roll angle  Re-inflation behaviour  Total change of course  Course  No  No  A  No  A  No  A  No  A  Less than 90° / Dive or roll angle  15° to 45°  Re-inflation behaviour  Total change of course  Course  No  No  A  No  A  No  A  Collapse  Collapse  Course  Less than 360°  A  Less than 360°  A  Less than 360°  A  Less than 360°  A  Collapse on the opposite side occurs  No  A  No  A  No  A  No  A  No  A  Cascade occurs  No  A  No  A  No  A  Collapse  Course  Collapse  Course  Collapse  No  A  No  A  No  A  Collapse  Collapse  Collapse  Course  Collapse  No  A  No  A  No  A  Collapse on the opposite side occurs  No  A  Collapse on the opposite side occurs  No  No  A  No  A  No  Collapse  Collapse  Collapse  Collapse  Collapse  O  Collapse  O  Collapse  No  A  No  A  No  A  Collapse  O  Collapse  Co
12. High angle of attack recovery   Spontaneous in less than 3 s   A   Spontaneous in less than 3 s   A   Cascade occurs   No
Recovery Cascade occurs No No A No A No No A No A No A No A A No A A A A
Cascade occurs  No  No  A  No  A  No  A  No  A  No  A  No  A  13. Recovery from a developed full stall  C  Dive forward angle on exit  Collapse  No collapse  No collapse  No  Cascade occurs (other than collapses)  No  Rocking back  Line tension  Most lines tight  A  Most lines tight  A  Most lines tight  A  Most lines tight  A  14. Asymmetric collapse  Change of course until re-inflation / Maximum dive forward or roll angle  Re-inflation behaviour  Total change of course  Less than 360°  No  A  Collapse  Change of course  Less than 360°  A  No  A  No  A  No  A  No  A  No  A  No  A  Cascade occurs  No  No  A  No  A  No  A  No  Cascade occurs  No  No  No  A  No  Cascade occurs  No  No  No  A  No  Cascade occurs  No  No  No  No  A  No  Cascade occurs  No  No  No  No  Cascade occurs  No  No  No  No  No  No  No  No  No  N
13. Recovery from a developed full stall   C
Dive forward angle on exit  Collapse  No collapse  No collapse  No collapse  No  Greater than 45°  C Greater than 45°  A Nos Insure than 45°  C Greater than 45°  C Greater than 45°  C Greater than 45°  C Greater than 45°  A Nos Insure than 45°  A Less than 90° / Dive or roll angle 45°  C Hordina 15° to 45°  A No A N
Collapse
Cascade occurs (other than collapses)  Rocking back  Greater than 45°  Greater than 45°  C Greater than 45°  A Most lines tight  A Less than 90° / Dive or roll angle  A Less than 90° / Dive or roll angle  A Less than 90° / Dive or roll angle  A Less than 90° / Dive or roll angle  A Less than 90° / Dive or roll angle  A Less than 90° / Dive or roll angle  A Less than 90° / Dive or roll angle  A Less than 90° / Dive or roll angle  A Less than 90° / Dive or roll angle  A Less than 90° / Dive or roll angl
Rocking back Line tension Most lines tight A Most l
Line tension Most lines tight A Most lines tight A  14. Asymmetric collapse  With 50% collapse Change of course until re-inflation / Maximum dive forward or roll angle Re-inflation behaviour Spontaneous re-inflation A Spontaneous re-inflation A Spontaneous re-inflation A Collapse on the opposite side occurs No A No A No A No A No A With 75% collapse Change of course until re-inflation / Maximum dive forward or roll angle A No A With 75% collapse Change of course until re-inflation / Maximum dive forward or roll angle A No
14. Asymmetric collapse         With 50% collapse       D         Change of course until re-inflation / Maximum dive forward or roll angle angle       Less than 90° / Dive or roll angle 15° to 45°       A Less than 90° / Dive or roll angle 15° to 45°       A Spontaneous re-inflation       A Spontaneous re-inflation       A Spontaneous re-inflation       A Less than 360°       A No       A No       A No       A No       A No       A No       A With 75% collapse       A No       A No       A With 75% collapse       A No       A No       A With 75% to 60°       A No       A No       A With 75% collapse       C Source of Course until re-inflation / Maximum dive forward or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       C Source of 180° / Dive or roll angle 45° to 60°       <
With 50% collapseChange of course until re-inflation / Maximum dive forward or roll angle roll angleLess than 90° / Dive or roll angle 15° to 45°A Less than 90° / Dive or roll angle 15° to 45°A Less than 90° / Dive or roll angle 15° to 45°Re-inflation behaviourSpontaneous re-inflationA Spontaneous re-inflationA Spontaneous re-inflationTotal change of courseLess than 360°A Less than 360°A Less than 360°A Spontaneous re-inflationCollapse on the opposite side occursNoA NoA NoA NoTwist occursNoA NoA NoA With 75% collapseChange of course until re-inflation / Maximum dive forward or roll angle90° to 180° / Dive or roll angle 45° to 60°C 90° to 180° / Dive or roll angle 45° to 60°C
Change of course until re-inflation / Maximum dive forward or roll angle roll angle roll angle Re-inflation behaviour Spontaneous re-inflation A Spontaneous
roll angle 15° to 45° 15° to 45°  Re-inflation behaviour Spontaneous re-inflation A Spontaneous re-inflation A  Total change of course Less than 360° A Less than 360° A  Collapse on the opposite side occurs No A No A  Twist occurs No A No A  Cascade occurs No A No A  Cascade occurs No A No A  With 75% collapse  Change of course until re-inflation / Maximum dive forward or roll angle  C 90° to 180° / Dive or roll angle  C 90° to 180° / Dive or roll angle 45° C to 60°
Total change of course  Collapse on the opposite side occurs  No  No  No  A  No  No  A  No  Cascade occurs  No  No  No  A  No  A  No  Cascade occurs  No  No  No  A  No  No  A  No  No  A  No  A  No  Cascade occurs  No  No  No  No  No  No  No  No  No  N
Collapse on the opposite side occurs  No No No A No No A No Cascade occurs No No A No A No A No Cascade occurs No No A No No A No No A No No A No
Twist occurs  No A No A No A No A No A With 75% collapse  Change of course until re-inflation / Maximum dive forward or roll angle  Change of course until re-inflation / Maximum dive forward or roll angle  C To
Cascade occurs  No  No  A  No  A  No  No  A  No  No  A  No  No
With 75% collapse  Change of course until re-inflation / Maximum dive forward or roll angle  Output  O
Change of course until re-inflation / Maximum dive forward or roll angle 90° to 180° / Dive or roll angle C 90° to 180° / Dive or roll angle 45° C to 60°
roll angle 45° to 60° to 60°
Re-inflation behaviour Spontaneous re-inflation A Spontaneous re-inflation A
· · · · · · · · · · · · · · · · · · ·
Total change of course Less than 360° A Less than 360° A
Collapse on the opposite side occurs  Yes, no turn reversal  C No A
Twist occurs No A No A
Cascade occurs No A No A
With 50% collapse and accelerator
Change of course until re-inflation / Maximum dive forward or roll angle angle by Less than 90° / Dive or roll angle A 15° to 45° by Less than 90° / Dive or roll angle A 15° to 45°
Re-inflation behaviour Spontaneous re-inflation A Spontaneous re-inflation A
Total change of course Less than 360° A Less than 360° A
Collapse on the opposite side occurs No A No A
Twist occurs No A No A
Cascade occurs No A No A
With 75% collapse and accelerator
Change of course until re-inflation / Maximum dive forward or roll angle 90° to 180° / Dive or roll angle C 180° to 360° / Dive or roll angle 45° C 45° to 60°
Re-inflation behaviour Spontaneous re-inflation A Spontaneous re-inflation A
Total change of course Less than 360° A Less than 360° A
Collapse on the opposite side occurs  Yes, no turn reversal  C Yes, causing turn reversal  D
Twist occurs No A No A
Cascade occurs No A No A
15. Directional control with a maintained asymmetric A collapse
Able to keep course Yes A Yes A
180° turn away from the collapsed side possible in 10 s Yes A Yes A

Amount of control range between turn and stall or spin	More than 50 % of the symmetric control travel	Α	More than 50 % of the symmetric control travel	Α
16. Trim speed spin tendency	Α			
Spin occurs	No	Α	No	Α
17. Low speed spin tendency	A			
Spin occurs	No	Α	No	Α
18. Recovery from a developed spin	Α			
Spin rotation angle after release	Stops spinning in less than 90°	Α	Stops spinning in less than 90°	Α
Cascade occurs	No	Α	No	Α
19. B-line stall	0			
Change of course before release	not available	0	not available	0
Behaviour before release	not available	0	not available	0
Recovery	not available	0	not available	0
Dive forward angle on exit	not available	0	not available	0
Cascade occurs	not available	0	not available	0
20. Big ears	В			
Entry procedure	Standard technique	Α	Standard technique	Α
Behaviour during big ears	Stable flight	Α	Stable flight	Α
Recovery	Spontaneous in 3 s to 5 s	В	Recovery through pilot action in less than a further 3 s	В
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
21. Big ears in accelerated flight	С			
Entry procedure	Standard technique	Α	Standard technique	Α
Behaviour during big ears	Unstable flight	С	Stable flight	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in 3 s to 5 s	Α
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	Α	Stable flight	Α
22. Behaviour exiting a steep spiral	D			
Tendency to return to straight flight	Turn remains constant	D	Turn remains constant	D
Turn angle to recover normal flight	With pilot action	D	With pilot action	D
Sink rate when evaluating spiral stability [m/s]	28		29	
23. Alternative means of directional control	Α			
180° turn achievable in 20 s	Yes	Α	Yes	Α
Stall or spin occurs	No	Α	No	Α
24. Any other flight procedure and/or configuration described in the user's manual	0			
Procedure works as described	not available	0	not available	0
Procedure suitable for novice pilots	not available	0	not available	0
Cascade occurs	not available	0	not available	0
25. Comments of test pilot				
Comments	B-Stall lines test is not recommanded by the user manual. If asymmetric collapses are not corresponding to the requirements of the standard, this could induce cravat.		B-Stall lines test is not recommanded by the user manual. If asymmetric collapses are not corresponding to the requirements of the standard, this could induce cravat.	