## AIR TURQUOISE SA | PARA-TEST.COM

Route du Pré-au-Comte 8 🔺 CH-1844 Villeneuve 🔺 +41 (0)21 965 65 65

Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



## Flight test report: EN 926-2:2013+A1:2021\* & NfL 2-565-20

<b>U</b>						
Manufacturer Advance Thun AG		Certification number	PG_2014.2022			
Address Uttigenstrasse 87 3600 Thun		Flight test	04.08.2022			
Clider model	Switzerland	Classification	E	2		
Glider model EPSILON 10 DLS 28						
Serial number 95297		Representative		None		
Trimmer no		Place of test	V	/illeneuve		
Folding lines used	no					
Test pilot		Claude Thurnheer	A	Anselm Rauh		
Harness		Advance - Success 4 M	ε	Supair - Evo XC 3 L		
Harness to risers distance (cm) Distance between risers (cm)		43 44		44 48		
Total weight in flight	. (кд)	91	I	18		
1. Inflation/Take-off		Α				
Rising behaviour		Smooth, easy and constant rising	A	Smooth, easy and constant rising	A	
Special take off technique r	equired	No	A	No	A	
2. Landing		Α				
Special landing technique r	equired	No	A	No	A	
3. Speed in straight flight		В				
Trim speed more than 30 ki		Yes	A	Yes	A	
Speed range using the cont	trois larger than 10 km/h	Yes	A	Yes	A	
Minimum speed 4. Control movement		Less than 25 km/h	A	25 km/h to 30 km/h	В	
	80 kg	Α				
Max. weight in flight up to Symmetric control pressure		not available	0	not available	0	
Max. weight in flight 80 kg		not available	0		0	
Symmetric control pressure		Increasing / greater than 60 cm	А	not available	0	
Max. weight in flight great		molectoring / greater than oo om	~		U	
Symmetric control pressure	-	not available	0	Increasing / greater than 65 cm	А	
5. Pitch stability exiting a		A	Ū		, ,	
Dive forward angle on exit	g	Dive forward less than 30°	А	Dive forward less than 30°	A	
Collapse occurs		No	А	No	A	
•	g controls during accelerated	A				
Collapse occurs		No	А	No	А	
7. Roll stability and damp	ing	A				
Oscillations	U	Reducing	А	Reducing	А	
8. Stability in gentle spira	ls	A				
Tendency to return to straig		Spontaneous exit	А	Spontaneous exit	A	
9. Behaviour exiting a full		В				
Initial response of glider (first		No immediate reaction	В	No immediate reaction	В	
Tendency to return to straig	ht flight	Spontaneous exit (g force decreasing)	А	Spontaneous exit (g force decreasing, rate of turn decreasing)	A	
Turn angle to recover norm	al flight	Less than 720°, spontaneous recovery	А		A	
10. Symmetric front colla	ose	A				
Approximately 30 % chore	d					
Entry		Rocking back less than 45°	А	Rocking back less than 45°	А	
Recovery		Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А	

\*This standard is NOT covered by accreditation D-IS-19457-01

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Dive forward angle on exit Change of course	Dive forward 0° to 30° Keeping course	А	Dive forward 0° to 30° Keeping course	А
Cascade occurs	No	А	No	А
Folding lines used	No	А	No	А
At least 50% chord				
Entry	Rocking back less than 45°	А	Rocking back less than 45°	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	А	Dive forward 0° to 30° / Keeping course	А
Cascade occurs	No	А	No	А
Folding lines used	No	А	No	А
With accelerator				
Entry	Rocking back less than 45°	А	Rocking back less than 45°	А
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping	A	Dive forward 0° to 30° / Keeping	A
Dive forward angle of exit? Onlange of course	course	Λ	course	~
Cascade occurs	No	А	No	А
Folding lines used	No	А	No	А
11. Exiting deep stall (parachutal stall)	A			
Deep stall achieved	Yes	А	Yes	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	A	Dive forward 0° to 30°	A
Change of course	Changing course less than 45°	A	Changing course less than 45°	A
Cascade occurs	No		No	A
12. High angle of attack recovery	A	~	No	~
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Cascade occurs	No	A	No	A
13. Recovery from a developed full stall	A	7.		7.
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Collapse	No collapse	A	No collapse	A
Cascade occurs (other than collapses)	No	A	No	A
Rocking back	Less than 45°	A	Less than 45°	A
Line tension	Most lines tight	A	Most lines tight	A
14. Asymmetric collapse	A	~	Most most ugn	~
Small asymmetric collapse	2			
Change of course until re-inflation / Maximum dive forward or	Less than 90° / Dive or roll angle	А	Less than 90° / Dive or roll angle	А
roll angle	0° to 15°		0° to 15°	
Re-inflation behaviour	Spontaneous re-inflation	A	Spontaneous re-inflation	А
Total change of course	Less than 360°	A	Less than 360°	A
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	A	No (or only a small number of collapsed cells with a spontaneous reinflation)	A
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
Folding lines used	No	А	No	А
Large asymmetric collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle $15^{\circ}$ to $45^{\circ}$	A	Less than 90° / Dive or roll angle $15^\circ$ to $45^\circ$	A
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	A	No (or only a small number of collapsed cells with a spontaneous reinflation)	A
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
Folding lines used	No	А	No	А
Small asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle $15^\circ$ to $45^\circ$	A	Less than 90° / Dive or roll angle $15^\circ$ to $45^\circ$	A
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А

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Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	A	No (or only a small number of collapsed cells with a spontaneous reinflation)	A
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
Folding lines used	No	A	No	A
Large asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45°	A	Less than 90° / Dive or roll angle 15° to 45°	A
Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Total change of course	Less than 360°	А	Less than 360°	А
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	A	No (or only a small number of collapsed cells with a spontaneous reinflation)	A
Twist occurs	No	А	No	А
Cascade occurs	No	А	No	А
Folding lines used	No	А	No	А
15. Directional control with a maintained asymmetric collapse	A			
Able to keep course	Yes	А	Yes	А
180° turn away from the collapsed side possible in 10 s	Yes	А	Yes	А
Amount of control range between turn and stall or spin	More than 50 % of the symmetric control travel	A	More than 50 % of the symmetric control travel	A
16. Trim speed spin tendency	Α			
Spin occurs	No	А	No	А
17. Low speed spin tendency	A			
Spin occurs	No	А	No	А
18. Recovery from a developed spin	В			
Spin rotation angle after release	Stops spinning in 90° to 180°	В	Stops spinning in less than 90°	А
Cascade occurs	No	А	No	А
19. B-line stall	A			
Change of course before release	Changing course less than 45°	А	Changing course less than 45°	А
Behaviour before release	Remains stable with straight span	А	Remains stable with straight span	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Cascade occurs	No	А	No	А
20. Big ears	A			
Entry procedure	Dedicated controls	А	Dedicated controls	А
Behaviour during big ears	Stable flight	А	Stable flight	А
Recovery				
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Spontaneous in less than 3 s Dive forward 0° to 30°	A A	Spontaneous in less than 3 s Dive forward 0° to 30°	A A
-	•		•	
Dive forward angle on exit	Dive forward 0° to 30°		•	
Dive forward angle on exit 21. Big ears in accelerated flight	Dive forward 0° to 30° A	A	Dive forward 0° to 30°	A
Dive forward angle on exit 21. Big ears in accelerated flight Entry procedure	Dive forward 0° to 30° A Dedicated controls	A	Dive forward 0° to 30° Dedicated controls	A
Dive forward angle on exit <b>21. Big ears in accelerated flight</b> Entry procedure Behaviour during big ears	Dive forward 0° to 30° A Dedicated controls Stable flight	A A A	Dive forward 0° to 30° Dedicated controls Stable flight	A A A
Dive forward angle on exit <b>21. Big ears in accelerated flight</b> Entry procedure Behaviour during big ears Recovery	Dive forward 0° to 30° A Dedicated controls Stable flight Spontaneous in less than 3 s	A A A	Dive forward 0° to 30° Dedicated controls Stable flight Spontaneous in less than 3 s	A A A
Dive forward angle on exit <b>21. Big ears in accelerated flight</b> Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelerator while	Dive forward 0° to 30° A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°	A A A A	Dive forward 0° to 30° Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°	A A A A
Dive forward angle on exit <b>21. Big ears in accelerated flight</b> Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelerator while maintaining big ears	Dive forward 0° to 30° <b>A</b> Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° Stable flight	A A A A	Dive forward 0° to 30° Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°	A A A A
Dive forward angle on exit <b>21. Big ears in accelerated flight</b> Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelerator while maintaining big ears <b>22. Alternative means of directional control</b>	Dive forward 0° to 30° A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° Stable flight A	A A A A A	Dive forward 0° to 30° Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° Stable flight	A A A A A
Dive forward angle on exit 21. Big ears in accelerated flight Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelerator while maintaining big ears 22. Alternative means of directional control 180° turn achievable in 20 s	Dive forward 0° to 30°          A         Dedicated controls         Stable flight         Spontaneous in less than 3 s         Dive forward 0° to 30°         Stable flight         Yes	A A A A A	Dive forward 0° to 30° Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° Stable flight Yes	A A A A A
Dive forward angle on exit 21. Big ears in accelerated flight Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelerator while maintaining big ears 22. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs 23. Any other flight procedure and/or configuration	Dive forward 0° to 30° A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° Stable flight A Yes No	A A A A A	Dive forward 0° to 30° Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° Stable flight Yes	A A A A A
Dive forward angle on exit21. Big ears in accelerated flightEntry procedureBehaviour during big earsRecoveryDive forward angle on exitBehaviour immediately after releasing the accelerator while maintaining big ears22. Alternative means of directional control180° turn achievable in 20 sStall or spin occurs23. Any other flight procedure and/or configuration described in the user's manual	Dive forward 0° to 30° A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° Stable flight A Yes No 0	A A A A A A	Dive forward 0° to 30° Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° Stable flight Yes No	A A A A A A
Dive forward angle on exit <b>21. Big ears in accelerated flight</b> Entry procedureBehaviour during big earsRecoveryDive forward angle on exitBehaviour immediately after releasing the accelerator while maintaining big ears <b>22. Alternative means of directional control</b> 180° turn achievable in 20 s Stall or spin occursStall or spin occurs <b>23. Any other flight procedure and/or configuration described in the user's manual</b> Procedure works as described	Dive forward 0° to 30° A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° Stable flight A Yes No 0 not available	A A A A A A A O	Dive forward 0° to 30° Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° Stable flight Yes No	A A A A A A A O