Flight test report

Manufacturer Gradient s.r.o. Address Plzeňská 221/130

150 00 Praha 5 - Motol

Czech Republic

Representive None Type of glider Bright 3 26 not available Trimmer

PG 026.2006 Certification number Date of flight test 12/12/2006 Villeneuve Place of test



Classification B

Alain Zoller Sky Para reverse 95 kg Test Pilot Claude Thurnheer Harness sup air light
Total weight in flight 75 kg

		Min waight		May waight	
1. Inflation/Ta		Min weight		Max weight	
	Rising behaviour	Smooth, easy and constant rising	Α	Smooth, easy and constant rising	Α
	Special take off technique required	No	Α	No	Α
2. Landing		.,			
3. Speed in s	Special landing technique required	No	Α	No	Α
o. opeed iii o	Trim speed more than 30 km/h	Yes	Α	Yes	Α
	Speed range using the controls larger than 10 km/h	Yes	Α	Yes	Α
	Minimum speed	Less than 25 km/h	Α	Less than 25 km/h	Α
4. Control mo					
	Max. weight in flight up to 80 kg	Increasing Creater than 60 are	^	not evallable	0
	Symmetric control pressure/travel Max. weight in flight 80 kg to 100 kg	Increasing, Greater than 60 cm	Α	not available	U
	Symmetric control pressure/travel	not available	0	Increasing, Greater than 60 cm	Α
	Max. weight in flight greater than 100 kg			3,	
	Symmetric control pressure/travel	not available	0	not available	0
5. Pitch stabi	ility exiting accelerated flight	D: ()		D: (11 11 000	
	Dive forward angle on exit Collapse occurs	Dive forward less than 30° No	A A	Dive forward less than 30° No	A A
6. Pitch stabi	ility operating controls during accelerated flight	NO .	^	NO .	
	Collapse occurs	No	Α	No	Α
7. Roll stabili	ity and damping				
	Oscillations	Reducing	Α	Reducing	Α
8. Stability in	gentle spirals	Spontonogua ovit	٨	Spontonocuo evit	۸
9. Behaviour	Tendency to return to straight flight in a steeply banked turn	Spontaneous exit	Α	Spontaneous exit	Α
3. Dellavioui	Sink rate after two turns	More than 14 m/s	В	More than 14 m/s	В
10. Symmetri	ic front collapse				
	Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
	Dive forward angle on exit	Dive foward 0°to 30°, Entering a turn less than	A	Dive foward 0°to 30°, Keeping course	A
	Cascade occurs With accelerator	No	Α	No	Α
	Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
	Dive forward angle on exit	Dive foward 0°to 30°, Entering a turn less than 90°		Dive foward 0°to 30°, Keeping course	Α
44 = 10	Cascade occurs	No	Α	No	Α
11. Exiting de	eep stall (parachutal stall) Deep stall achieved	Yes	Α	Yes	Α
	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°	Α	Dive forward 0°to 30°	A
	Change of course	Changing course less than 45°	Α	Changing course less than 45°	Α
	Cascade occurs	No	Α	No	Α
12. High ang	le of attack recovery	Once the second in least the second		0	
	Recovery Cascade occurs	Spontaneous in less than 3 s No	A A	Spontaneous in less than 3 s No	A A
13. Recovery	r from a developed full stall		Α.		
2	Dive forward angle on exit	Dive forward 0°to 30°	Α	Dive forward 30° to 60°	В
	Collapse	No collapse	Α	No collapse	Α
	Cascade occurs (other than collapse)	No 453	Α	No	Α
	Rocking back	Less than 45°	A	Less than 45°	A
14. Asymmet	Line tension	Most line tight	Α	Most line tight	Α
. t. Asymmet	With 50% collapse-Maximum dive forward or roll angle				
	Change of course until re-inflation	Less than 90°, Dive or roll angle 0° to 15°	Α	Less than 90°, Dive or roll angle 0° to 15°	Α
	Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
	Total change of course	Less than 360°	A	Less than 360°	Α
	Collapse on the opposite side occurs	No No	A	No No	A
	l wist occurs Cascade occurs	No No	A	No No	A A
	With 75% collapse-Maximum dive forward or roll angle		^		^
	Change of course until re-inflation	Less than 90°, Dive or roll angle 15° to 45°	Α	Less than 90°, Dive or roll angle 0° to 15°	Α
	Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
	Total change of course	Less than 360°	Α	Less than 360°	Α
	Collapse on the opposite side occurs	No	A	No	A
	Twist occurs	No No	Α	No No	Α Δ
	Cascade occurs With 50% collapse and accelerator-Maximum dive forward or		Α	INO	Α
	Change of course until re-inflation	Less than 90°, Dive or roll angle 0° to 15°	Α	Less than 90°, Dive or roll angle 0° to 15°	Α
	Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	A
	Total change of course	Less than 360°	Α	Less than 360°	Α
	Collapse on the opposite side occurs	No	Α	No	Α

Entry procedure Standard technique A Behaviour during big ears Stable flight A Dive forward angle on exit Dive forward 0° to 30° A Dive forward angle on exit Dive forward 0° to 30° A Dive forward angle on exit Dive forward 0° to 30° A Dive forward 0° to 30°	-		
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Re-inflation behaviour Spontaneous re-inflation A Less than 360" A Collapse on the opposite side occurs No No A No No A No No A No Cascade occurs No No A 15. Directional control with a maintained asymmetric collapse Able to keep course Able to keep cours			00° to 100° Dive or rell angle 0° to 15°
Total change of course Colleges on the opposite side occurs No Cacaded occurs No No A No A No A No Cacaded occurs No No A		•	
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Twist occurs Cascade occurs No Cascade occurs Alb. Directional Control with a maintained asymmetric collapse Able to keep course Albe to keep course to know that stagint span Albe to keep course Albe to kee			
Cascade occurs No Able to keep course Able t			
15. Directional control with a maintained asymmetric collapse A Dibr to keep course Amount of control range between turn and stall or spin Amount of control range between turn and stall or spin By fin occurs Spin occurs Spin occurs No Spin occur			
Able to keep course 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 A No Cascade occurs A No A N		No	A No A
180° turn away from the collapsed side possible in 10 s Yes An Amount of control range between turn and stall or spin More than 50 % of the symmetric control travel And No. A No. A No. A No. A No. A No. A			
Amount of control range between turn and stall or spin More than 50 % of the symmetric control travel			
16. Trim speed spin tendency Spin occurs No No A			
Spin occurs No		More than 50 % of the symmetric control travel	A More than 50 % of the symmetric control travel A
17. Low speed spin tendency Spin occurs No			
Spin occurs No Spin rotation angle after release Stops spinning in less than 90" A No		No	A No A
Spin rotation angle after release Stops spinning in less than 90° A Cascade occurs No A No No A No			
Spin rotation angle after release Stops spinning in less than 90° A Cascade occurs No A Cascade occurs No A Cascade occurs No A Cascade occurs Angle of course before release Angle of Change of course less than 45° A Remains stable with straight span A Recovery Angle on exit Dive forward on 10 to 30° A Dive forward angle on exit Dive forward 0° to 30° A Dive forward 0°		No	A No A
Cascade occurs			
19. B-line stall Change of course before release Remains stable with straight span Recovery Spontaneous in less than 3 s Dive forward angle on exit Cascade occurs No A No A Standard technique Behaviour during big ears Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A No			
Change of course before release Remains stable with straight span A Recovery Spontaneous in less than 3 s A Dive forward 0° to 30° A No A N		No	A No A
Behaviour before release Remains stable with straight span A Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward one with Cascade occurs No A No	19. B-line stall		
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21. Big ears in accelerated flight Entry procedure Behaviour during big ears Standard technique Standard technique A Stable flight A Stable fl	Recovery	Spontaneous in less than 3 s	A Spontaneous in less than 3 s
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Behaviour during big ears Recovery Spontaneous in less than 3 s A Stable flight Recovery Spontaneous in less than 3 s A Dive forward 0° to 30° A Dive forward 0° to 30° A Dive forward 0° to 30° A Stable flight A	21. Big ears in accelerated flight		
Recovery Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° A Stable flight A Stable flight A Stable flight A Stable flight A Spontaneous exit A Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s] 17 m/s 23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No A Stable flight procedure and/or configuration described in the user's manual Procedure works as described Procedure suitable for novice pilots not available O Rasede occurs O Robinson Spontaneous in less than 3 s A Dive forward 0° to 30° A Dive forward 0°	Entry procedure	Standard technique	A Standard technique A
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22. Behaviour exiting a steep spiral Tendency to return to straight flight Spontaneous exit A Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s] 17 m/s 18 m/s 23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No A A 24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described Procedure suitable for novice pilots not available Cascade occurs not available 0 not available	Dive forward angle on exit	Dive forward 0° to 30°	A Dive forward 0° to 30° A
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Procedure suitable for novice pilots not available 0 not available 0 not available 0 not available 0			0 not available
Cascade occurs not available 0 not available 0			
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