## 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	On a sink handing to sharing a service of	N-		Ma	
3. Speed in s	Special landing technique required	No	Α	No	Α
3. Speed III S	Trim speed more than 30 km/h	Yes	Α	Yes	Α
	Speed range using the controls larger than 10 km/h		Α	Yes	A
	Minimum speed		Α	Less than 25 km/h	Α
4. Control mo					
	Max. weight in flight up to 80 kg				_
	Symmetric control pressure/travel	Increasing, Greater than 60 cm	Α	not available	0
	Max. weight in flight 80 kg to 100 kg Symmetric control pressure/travel	not available	0	Increasing, Greater than 60 cm	Α
	Max. weight in flight greater than 100 kg	The divalidate	ŭ	moreading, creater than 50 cm	٠,
	Symmetric control pressure/travel	not available	0	not available	0
5. Pitch stabi	ility exiting accelerated flight				
	Dive forward angle on exit			Dive forward less than 30°	Α
O Divel - v-bi	Collapse occurs	No	Α	No	Α
6. Pitch Stabi	ility operating controls during accelerated flight  Collapse occurs	No	Α	No	Α
7. Roll stabili	ity and damping	TNO .	^	INO .	A
Gualii	Oscillations	Reducing	Α	Reducing	Α
8. Stability in	gentle spirals				
	Tendency to return to straight flight	Spontaneous exit	Α	Spontaneous exit	Α
9. Behaviour	in a steeply banked turn	Mare than 11 m/s	_	Mara than 44 m/a	
10 Symmotri	Sink rate after two turns ic front collapse	More than 14 m/s	В	More than 14 m/s	В
io. Symmetri	Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
	Recovery	· · · · · · · · · · · · · · · · · · ·	Α	Spontaneous in less than 3 s	A
	Dive forward angle on exit		Α	Dive foward 0°to 30°, Keeping course	Α
	Cascade occurs	No	Α	No	Α
	With accelerator				
	Entry	· · · · · ·	Α	Rocking back less than 45°	A
	Recovery Dive forward angle on exit	Spontaneous in less than 3 s Dive foward 0°to 30°, Entering a turn less than 90°	Α Δ	Spontaneous in less than 3 s Dive foward 0°to 30°, Keeping course	A A
	Cascade occurs		A	No	A
11. Exiting de	eep stall (parachutal stall)				
	Deep stall achieved	Yes	Α	Yes	Α
	Recovery	•	Α	Spontaneous in less than 3 s	Α
	Dive forward angle on exit		A	Dive forward 0°to 30°	A
	Change of course Cascade occurs		A A	Changing course less than 45° No	A A
12. High angl	le of attack recovery				- / \
3 . 3	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
	Cascade occurs	No	Α	No	Α
13. Recovery	from a developed full stall	D: 6 100 000		D: ( 100% 000	_
	Dive forward angle on exit			Dive forward 30°to 60°	В
	Collapse Cascade occurs (other than collapse)	•	A A	No collapse No	A A
	Rocking back		A	Less than 45°	A
	Line tension		Α	Most line tight	Α
14. Asymmet	tric collapse			· ·	
	With 50% collapse-Maximum dive forward or roll angle				
	Change of course until re-inflation		A	Less than 90°, Dive or roll angle 0° to 15°	A
	Re-inflation behaviour Total change of course	•	A A	Spontaneous re-inflation Less than 360°	A A
	Collapse on the opposite side occurs		A	No	A
	Twist occurs		Α	No	A
	Cascade occurs			No	Α
	With 75% collapse-Maximum dive forward or roll angle				
	Change of course until re-inflation		Α	Less than 90°, Dive or roll angle 0° to 15°	Α
	Re-inflation behaviour	•	A	Spontaneous re-inflation Less than 360°	A
	Total change of course Collapse on the opposite side occurs			No	A A
	Twist occurs			No	A
	Cascade occurs		Α	No	A
	With 50% collapse and accelerator-Maximum dive forward or				
	Change of course until re-inflation			Less than 90°, Dive or roll angle 0° to 15°	Α
	Re-inflation behaviour	•	Α	Spontaneous re-inflation	Α
	Total change of course		A	Less than 360°	A
	Collapse on the opposite side occurs	No	А	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°	<del>-</del>		
With T5% collapse and accelerator-Maximum dive forward or roll angle   Change of course until re-inflation   Change of course until re-inflation   A Re-inflation behaviour   Spontaneous re-inflation   A Collapse on the opposite side occurs   No			
Change of course until re-inflation Re-inflation behaviour Ropostate discourse re-inflation Ropostate discourse (less than 960", Dive or roll angle 15" to 45" A Ropostaneous re-inflation Ropostate discourse (less than 360" A No A No No A Ropostate discourse No No A No No A No No A Ropostate discourse No No A No No A No No A No No A Ropostate discourse No No A No No A No No A No No No A Ropostate discourse No No A No No No A No No No A No No No No A No			A NO A
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		•	
Collapse on the opposite side occurs No Twist occurs No Cascade occurs Able to keep course Able to keep co			
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 angle on exit Dive forward 0° to 30° A Dive forward 0° to		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 Remains stable with straight stable with straight span A Remains stabl		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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Dive forward angle on exit	Behaviour before release	Remains stable with straight span	
Cascade occurs No A No A No A A No A A No A A 20. Big ears  Entry procedure Standard technique A Stable flight	Recovery	Spontaneous in less than 3 s	
Entry procedure Behaviour during big ears Stable flight A Stable flight A Recovery Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° A Standard technique A Standard technique A Standard technique A Stable flight A Stable fli	Dive forward angle on exit	Dive forward 0° to 30°	A Dive forward 0° to 30° A
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Dive forward angle on exit  Dive forward 0° to 30°  A Dive forward 0° to 30°  A 21. Big ears in accelerated flight  Entry procedure Standard technique Stable flight A Stable	Behaviour during big ears	Stable flight	A Stable flight A
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
Entry procedure  Behaviour during big ears  Stable flight  A Spontaneous in less than 3 s  A Spontaneous in less than 3 s  A Dive forward angle on exit  Behaviour immediately after releasing the accelerator while  Stable flight  A Stable flight	Dive forward angle on exit	Dive forward 0° to 30°	A Dive forward 0° to 30° A
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 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 Stall or spin occurs No A No A A No A A No A A No A A Onotavailable O not available O	Entry procedure	Standard technique	A Standard technique A
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 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 Stall or spin occurs No A No A A No A A No A A No A A Onotavailable O not available O	Behaviour during big ears	Stable flight	A Stable flight A
Behaviour immediately after releasing the accelerator while 22. Behaviour exiting a steep spiral  Tendency to return to straight flight Spontaneous exit A Spontaneou		Spontaneous in less than 3 s	A Spontaneous in less than 3 s
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
Tendency to return to straight flight Turn angle to recover normal flight Spontaneous exit A Turn angle to recover normal flight Less than 720°, spontaneous recovery Sink rate when evaluating spiral stability [m/s]  23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No A Stall or spin occurs No A A Ves A No A No A A A A No A A O A A O A O A O A O A O A O A O A	Behaviour immediately after releasing the accelerator while	Stable flight	A Stable flight A
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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 Yes A Stall or spin occurs No A No A  24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described not available 0			
23. Alternative means of directional control  180° turn achievable in 20 s Yes A Stall or spin occurs No A No A No A  24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described not available 0 not available for novice pilots not available 0			
180° turn achievable in 20 s Yes A Stall or spin occurs No A No A No A A No A A No A A No A No	23. Alternative means of directional control		
Stall or spin occurs No A No A  24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described not available 0		Yes	A Yes A
24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described not available 0 not available			
Procedure works as described not available 0			
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			
Comments of test pilot	Comments of test pilot		
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