Flight test report

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

150 00 Praha 5 - Motol

Czech Republic

Representive None Type of glider Avax XC2 24 not available Trimmer

PG 108.2007 Certification number Date of flight test 07/11/2007 Villeneuve Place of test



Classification C

Claude Thurnheer Gin Genie 3 95 kg Test Pilot Seiko Fukuoka Harness advance progress Total weight in flight 75 kg

		Min weight		Max weight	
1. Inflation/Ta		3			
	Rising behaviour	Overshoots, shall be slowed down to avoid front	С	Overshoots, shall be slowed down to avoid front	С
		collapse		collapse	
0.1	Special take off technique required	No	Α	No	Α
2. Landing	Special landing technique required	No	Α	No	Α
3. Speed in s	straight flight	INO	^	NO	
o. opeca iii a	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	25 km/h to 30 km/h	В
4. Control me					
	Max. weight in flight up to 80 kg				
	Symmetric control pressure/travel	Increasing, 40 cm to 55 cm	С	not available	0
	Max. weight in flight 80 kg to 100 kg	not available	0	Increasing 45 am to 60 am	_
	Symmetric control pressure/travel Max. weight in flight greater than 100 kg	not available	0	Increasing, 45 cm to 60 cm	С
	Symmetric control pressure/travel	not available	0	not available	0
5. Pitch stabi	ility exiting accelerated flight	not dranable	·	The available	
	Dive forward angle on exit	Dive forward less than 30°	Α	Dive forward less than 30°	Α
	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	Deducina	^	Deducine	
9 Stability in	Oscillations	Reducing	Α	Reducing	Α
o. Stability In	i gentle spirals Tendency to return to straight flight	Spontaneous exit	Α	Spontaneous exit	Α
9. Behaviour	in a steeply banked turn	Ороналовия вып	^	Openium cous cont	_
0. 20.101.00.	Sink rate after two turns	More than 14 m/s	В	More than 14 m/s	В
10. Symmetr	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°, Keeping course	Α	Dive foward 0°to 30°, Entering a turn less than	Α
				90°	
	Cascade occurs	No	Α	No	Α
	With accelerator Entry	Rocking back less than 45°	Α	Rocking back greater than 45°	С
	Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
	Dive forward angle on exit	Dive foward 0°to 30°, Entering a turn less than	A	Dive foward 0°to 30°, Keeping course	A
	Sire is ward ungle on oak	90°		2.10 formand of to do , recopining counce	, ,
	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	Α	Spontaneous in less than 3 s	Α
	Dive forward angle on exit	Dive forward 0°to 30°	Α	Dive forward 0°to 30°	Α
	Change of course Cascade occurs	Changing course less than 45° No	A A	Changing course less than 45° No	A
12. High and	le of attack recovery	110	^		
. z. riigii arig	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
	Cascade occurs	No	Α	No No	Α
13. Recovery	from a developed full stall				
	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	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 15° to 45°	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
	Twist occurs	No	Α	No	Α
	Cascade occurs	No	Α	No	Α
	With 75% collapse-Maximum dive forward or roll angle	Lass the 2000 Diversity 1 450 1 450		00% to 400% Diversity 1 450 1 200	_
	Change of course until re-inflation	Less than 90°, Dive or roll angle 15° to 45°	A	90° to 180°, Dive or roll angle 45° to 60°	C
	Re-inflation behaviour Total change of course	Spontaneous re-inflation Less than 360°	A A	Spontaneous re-inflation Less than 360°	A A
	Collapse on the opposite side occurs	No	A	No	A
	Twist occurs	No	A	No	A
	Cascade occurs	No	Α	No	Α
	With 50% collapse and accelerator-Maximum dive forward of Change of course until re-inflation	r roll angle			Α

	Re-inflation behaviour	Coontangers inflation	۸	Spontaneous re-inflation	۸
		Spontaneous re-inflation Less than 360°	A A	Less than 360°	A
	Total change of course		A	No	A A
	Collapse on the opposite side occurs Twist occurs	No No	A	No	A
	Cascade occurs	No	A	No	A
	With 75% collapse and accelerator-Maximum dive forward o		^	NO	^
	Change of course until re-inflation	180° to 360°, Dive or roll angle 15° to 45°	С	90° to 180°, Dive or roll angle 60° to 90°	С
	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	Ĉ	No.	A
	Twist occurs	No	Α	No	Α
	Cascade occurs	No	A	No	A
15 Direction	al control with a maintained asymmetric collapse	110	, ,	110	, ,
io. Direction	Able to keep course	Yes	Α	Yes	Α
	180° turn away from the collapsed side possible in 10 s	Yes	Α	Yes	Α
	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	A
16. Trim spec	ed spin tendency	more than so we have symmetric contact date.	- , ,	more than so 70 or the cynmetric control dave.	
	Spin occurs	No	Α	No	Α
17. Low spee	ed spin tendency				
	Spin occurs	No	Α	No	Α
18. Recovery	/ from a developed spin				
,	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 sta	all				
	Change of course before release	Change of course less than 45°	Α	Change of course less than 45°	Α
	Behaviour before release	Remains stable with straight span	Α	Remains stable with straight span	Α
	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
	Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
	Cascade occurs	No	Α	No	Α
20. Big ears					
J	Entry procedure	Standard technique	Α	Standard technique	Α
	Behaviour during big ears	Stable flight	Α	Stable flight	Α
	Recovery	Recovery through pilot action in less than a	В	Recovery through pilot action in less than a	В
	,	further 3 s	_	further 3 s	
	Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
21. Big ears i	in accelerated flight				
ŭ	Entry procedure	Standard technique	Α	Standard technique	Α
	Behaviour during big ears	Stable flight	Α	Stable flight	Α
	Recovery	Recovery through pilot action in less than a	В	Recovery through pilot action in less than a	В
				further 3 s	
		further 3 s		iditio 5 5	
	Dive forward angle on exit	further 3 s Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
	Dive forward angle on exit Behaviour immediately after releasing the accelerator while		A A		
22. Behaviou		Dive forward 0° to 30°		Dive forward 0° to 30°	
22. Behaviou	Behaviour immediately after releasing the accelerator while	Dive forward 0° to 30°		Dive forward 0° to 30°	Α
22. Behaviou	Behaviour immediately after releasing the accelerator while ar exiting a steep spiral	Dive forward 0° to 30° Stable flight	Α	Dive forward 0° to 30° Stable flight	A
22. Behaviou	Behaviour immediately after releasing the accelerator while ir exiting a steep spiral Tendency to return to straight flight	Dive forward 0° to 30° Stable flight Spontaneous exit	A	Dive forward 0° to 30° Stable flight Spontaneous exit	A
	Behaviour immediately after releasing the accelerator while ir exiting a steep spiral Tendency to return to straight flight Turn angle to recover normal flight	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery	A	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery	A
	Behaviour immediately after releasing the accelerator while Ir exiting a steep spiral Tendency to return to straight flight Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s]	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery	A	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery	A A
	Behaviour immediately after releasing the accelerator while Ir exiting a steep spiral Tendency to return to straight flight Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s] Ive means of directional control	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 16 m/s	A A	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 18 m/s	A A A
23. Alternativ	Behaviour immediately after releasing the accelerator while Ir exiting a steep spiral Tendency to return to straight flight Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s] Ive means of directional control 180° turn achievable in 20 s	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 16 m/s Yes No	A A A	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 18 m/s Yes	A A A
23. Alternativ	Behaviour immediately after releasing the accelerator while Ir exiting a steep spiral Tendency to return to straight flight Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s] ve means of directional control 180° turn achievable in 20 s Stall or spin occurs	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 16 m/s Yes No	A A A	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 18 m/s Yes	A A A
23. Alternativ	Behaviour immediately after releasing the accelerator while Ir exiting a steep spiral Tendency to return to straight flight Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s] Ver means of directional control 180° turn achievable in 20 s Stall or spin occurs If flight procedure and/or configuration described in the us	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 16 m/s Yes No er's manual	A A A	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 18 m/s Yes No	A A A
23. Alternativ	Behaviour immediately after releasing the accelerator while Ir exiting a steep spiral Tendency to return to straight flight Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s] Ive means of directional control 180° turn achievable in 20 s Stall or spin occurs If light procedure and/or configuration described in the us Procedure works as described	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 16 m/s Yes No er's manual not available	A A A	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 18 m/s Yes No not available	A A A
23. Alternativ	Behaviour immediately after releasing the accelerator while rr exiting a steep spiral Tendency to return to straight flight Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s] ve means of directional control 180° turn achievable in 20 s Stall or spin occurs r flight procedure and/or configuration described in the us Procedure works as described Procedure suitable for novice pilots Cascade occurs	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 16 m/s Yes No er's manual not available not available	A A A	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 18 m/s Yes No not available not available	A A A A A A A A A A A A A A A A A A A
23. Alternativ	Behaviour immediately after releasing the accelerator while rr exiting a steep spiral Tendency to return to straight flight Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s] ve means of directional control 180° turn achievable in 20 s Stall or spin occurs r flight procedure and/or configuration described in the us Procedure works as described Procedure suitable for novice pilots Cascade occurs	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 16 m/s Yes No er's manual not available not available	A A A	Dive forward 0° to 30° Stable flight Spontaneous exit Less than 720°, spontaneous recovery 18 m/s Yes No not available not available	A A A



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