

## Flight test report



Manufacturer **Gin Gliders Inc.** Certification number PG\_0212.2009 Address 586-5, Ilsan-Ri, Mohyun-Myun, Date of flight test 03. 02. 2009

449-855 YongIn-City, Kyunggi-

Do Korea

Representative None Place of test Villeneuve

Glider model Airflex 26 Classification C

Trimmer yes: closed

**Test pilot** Thurnheer Claude Zoller Alain

**Harness** Sup'Air - Altiplume M Sup'Air - Altiplume M

Total weight in flight (kg)	80		100	
1. Inflation/Take-off	Α			
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	Α			
Special landing technique required	No	Α	No	Α
3. Speed in straight flight	В			
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	25 km/h to 30 km/h	В	Less than 25 km/h	Α
4. Control movement	Α			
Max. weight in flight up to 80 kg				
Symmetric control pressure / travel	not available	0	not available	0
Max. weight in flight 80 kg to 100 kg				
Symmetric control pressure / travel	Increasing / greater than 60 cm	Α	Increasing / greater than 60 cm	Α
Max. weight in flight greater than 100 kg				
Symmetric control pressure / travel	not available	0	not available	0
5. Pitch stability exiting accelerated flight	Α			
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 stability operating controls during accelerated flight	Α			
Collapse occurs	No	Α	No	Α
7. Roll stability and damping	Α			
Oscillations	Reducing	Α	Reducing	Α
8. Stability in gentle spirals	Α			
Tendency to return to straight flight	Spontaneous exit	Α	Spontaneous exit	Α
9. Behaviour in a steeply banked turn	В			
Sink rate after two turns	More than 14 m/s	В	More than 14 m/s	В
10. Symmetric front collapse	В			
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in 3 s to 5 s	В
Dive forward angle on exit / Change of course	Dive forward 30° to 60° / Keeping course	В	Dive forward 30° to 60° / Keeping course	В
Cascade occurs	No	Α	No	Α
With accelerator				
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in 3 s to 5 s	В

Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	Α	Dive forward 30° to 60° / Keeping course	В
Cascade occurs	No	Α	No	Α
11. Exiting deep stall (parachutal stall)	Α			
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	Changing course less than 45°	Α	Changing course less than 45°	Α
Cascade occurs	No	Α	No	Α
12. High angle of attack recovery	A			
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	В			
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 collapses)	No	Α	No	Α
Rocking back	Less than 45°	Α	Less than 45°	Α
Line tension	Most lines tight	Α	Most lines tight	Α
14. Asymmetric collapse	С		-	
With 50% collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	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	Α	No	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
With 75% collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 15° to 45°	В	90° to 180° / Dive or roll angle 45° to 60°	С
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	Α	No	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
With 50% collapse and accelerator	,,,,			
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45°	Α	Less than 90° / Dive or roll angle 15° to 45°	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	Α	No	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
With 75% collapse and accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 15° to 45°	В	90° to 180° / Dive or roll angle 15° to 45°	В
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	Α	No	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
15. Directional control with a maintained asymmetric collapse	Α			
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	Α
16. Trim speed spin tendency	A			
Spin occurs	No	Α	No	Α

Spin coccurs         As 18. Recovery from a developed spin         As 2         Total control of the developed spin         As 3         Stops spinning in less than 90° and a solid part for release         A 5 (stops spinning in less than 90° and a 5 (stops spinning in less than 90° and a 5 (stops spinning in less than 90° and a 5 (stops spinning in less than 90° and a 5 (stops spinning in less than 90° and a 5 (stops spinning in less than 90° and a 5 (stops spinning in less than 90° and a 5 (stops spinning in less than 90° and a 5 (stops spinning in less than 90° and a 5 (stops spinning in less than 90° and 9	17. Low speed spin tendency	Α			
Spin rotation angle after release	Spin occurs	No	Α	No	Α
Cascade occurs         No         A         No         A           19. B-line stall         A         To         19. Big ears         A         Consider occurs         To         To <td< td=""><td>18. Recovery from a developed spin</td><td>Α</td><td></td><td></td><td></td></td<>	18. Recovery from a developed spin	Α			
19. B-line stall	Spin rotation angle after release	Stops spinning in less than 90°	Α	Stops spinning in less than 90°	Α
Change of course before release Remains stable with straight span Recovery	Cascade occurs	No	Α	No	Α
Behaviour before release         Remains stable with straight span span         A         Remains stable with straight span span         A           Recovery         Spontaneous in less than 3 s A Dive forward 0 to 30° A Dive forward angle on exit         A           Behaviour during big ears         Stable flight A Dive forward 0 to 30° A Dive f	19. B-line stall	A			
Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward 0 en xit One of the xit of xit	Change of course before release	Changing course less than 45°	Α	Changing course less than 45°	Α
Dive forward angle on exit   No A No	Behaviour before release	<u> </u>	Α	Remains stable with straight span	Α
Cascade occurs     No     A     No     A       20. Big ears     A       Entry procedure     Standard technique     A     Standard technique     A       Behaviour during big ears     Stable flight     A     Stable flight     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 0° to 30°     A       21. Big ears in accelerated flight     A     Entry procedure     Standard technique     A     Standard technique     A       Behaviour during big ears     Stable flight     A     Stable flight     A       Recovery     Spontaneous in 3 s to 5 s     A     Spontaneous in 3 s to 5 s     A       Dive forward angle on exit     Dive forward 0° to 30°     A     Stable flight     A       Recovery     Spontaneous in 3 s to 5 s     A     Spontaneous in 3 s to 5 s     A       Dive forward angle on exit     A     Stable flight     A     Stable flight     A       Recovery     Stable flight     A     Stable flight     A     Stable flight     A       Power of ward angle on exit     A     Stable flight     A     Stable flight     A       Tendency to return to straight flig	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
20. Big ears       A         Entry procedure       Standard technique       A       Standard technique       A         Behaviour during big ears       Stable flight       A       Stable flight       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 0° to 30°       A         21. Big ears in accelerated flight       A       Standard technique       A       Standard technique       A         Entry procedure       Standard technique       A       Stable flight       A         Behaviour during big ears       Stable flight       A       Stable flight       A         Recovery       Spontaneous in 3 s to 5 s       A       Spontaneous in 3 s to 5 s       A         Dive forward angle on exit       Dive forward 0° to 30°       A       Stable flight       A         Recovery       Spontaneous in 3 s to 5 s       A       Spontaneous in 3 s to 5 s       A         Dive forward ongle on exit       Behaviour immediately after releasing the accelerator while meling the accelerator while meling big ears       A       Stable flight       A       Stable flight       A         2. Behaviour exiting a steep spiral       A </td <td>Dive forward angle on exit</td> <td>Dive forward 0° to 30°</td> <td>Α</td> <td>Dive forward 0° to 30°</td> <td>Α</td>	Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Entry procedure  Standard technique A Standard technique A Standard technique A Stable flight A Standard technique A Stable flight A	Cascade occurs	No	Α	No	Α
Behaviour during big ears  Stable flight A Stable flight A Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward or to 30° A Dive forward 0° to 30° A	20. Big ears	A			
Recovery Spontaneous in less than 3 s A Dive forward 0° to 30° A Dive f	Entry procedure	Standard technique	Α	Standard technique	Α
Dive forward angle on exit  Dive forward 0° to 30°  A Standard technique  A Stable flight  A Stable flight  A Stable flight  A Stable flight  A Dive forward 0° to 30°  A Dive	Behaviour during big ears	Stable flight	Α	Stable flight	Α
21. Big ears in accelerated flight Entry procedure Standard technique A Standard technique A Standard technique A Stable flight A Stable flight A Stable flight A Spontaneous in 3 s to 5 s A Spontaneous in 3 s to 5 s A Dive forward angle on exit Behaviour immediately after releasing the accelerator while maintaining big ears  22. Behaviour exiting a steep spiral A Tendency to return to straight flight A Spontaneous exit A Less than 720°, spontaneous exit A Stall or accovery  Sink rate when evaluating spiral stability [m/s] 19 22  23. Alternative means of directional control A Stall or spin occurs A Yes A No A Stall or spin occurs A Yes A Procedure works as described Yes A Yes A Procedure suitable for novice pilots Yes A Yes A Yes A Cascade occurs A No A No A No A No A Standard technique A Less than 720° to 30° A Less than 720°, spontaneous exit A Vess A No A Standard technique A Less than 720°, spontaneous exit A Spontaneous exit A Less than 720°, spontaneous exit A Less than	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Entry procedure Standard technique A Standard technique A Behaviour during big ears Stable flight A Stable fli	Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Behaviour during big ears  Stable flight A Stable flight A Stable flight A Spontaneous in 3 s to 5 s A Spontaneous in 3 s to 5 s A Dive forward angle on exit Dive forward 0° to 30° A Dive forward 0° to 30° A Behaviour immediately after releasing the accelerator while maintaining big ears  22. Behaviour exiting a steep spiral A Stable flight A Spontaneous exit A Stable flight A S	21. Big ears in accelerated flight	A			
Recovery Spontaneous in 3 s to 5 s A Dive forward angle on exit Dive forward 0° to 30° A Behaviour immediately after releasing the accelerator while maintaining big ears  22. Behaviour exiting a steep spiral A Spontaneous exit A Spontaneous exit A Spontaneous exit A Cardency to return to straight flight Spontaneous exit A Spontaneous exit A Less than 720°, spontaneous exit A Less than 720°, spontaneous recovery Sink rate when evaluating spiral stability [m/s] 19 22  23. Alternative means of directional control A Stall or spin occurs No A Yes A Stall or spin occurs A No A No A No A Procedure works as described Yes A Yes A Yes A Procedure suitable for novice pilots Yes A No A No A No A Stall or spin occurs A Yes A No A Scall or spin occurs A No	Entry procedure	Standard technique	Α	Standard technique	Α
Dive forward angle on exit  Dive forward 0° to 30°  A Dive forward 0° to 30°  A Behaviour immediately after releasing the accelerator while maintaining big ears  22. Behaviour exiting a steep spiral  A  Tendency to return to straight flight  Spontaneous exit  A Spontaneous exit  A Spontaneous exit  A Uses than 720°, spontaneous exit  A Less than 720°,	Behaviour during big ears	Stable flight	Α	Stable flight	Α
Behaviour immediately after releasing the accelerator while maintaining big ears  22. Behaviour exiting a steep spiral  A  Tendency to return to straight flight  Spontaneous exit  A  Less than 720°, spontaneous exit  A  Less than 720	Recovery	Spontaneous in 3 s to 5 s	Α	Spontaneous in 3 s to 5 s	Α
maintaining big ears         22. Behaviour exiting a steep spiral       A         Tendency to return to straight flight       Spontaneous exit       A       Spontaneous exit       A         Turn angle to recover normal flight       Less than 720°, spontaneous recovery       A       Less than 720°, spontaneous recovery       A         Sink rate when evaluating spiral stability [m/s]       19       22         23. Alternative means of directional control       A         180° turn achievable in 20 s       Yes       A       Yes       A         Stall or spin occurs       No       A       No       A         24. Any other flight procedure and/or configuration described in the user's manual       A       A       Yes       A         Procedure works as described       Yes       A       Yes       A         Procedure suitable for novice pilots       Yes       A       Yes       A         Cascade occurs       No       A       No       A       No       A         25. Comments of test pilot       A       A       No       A       No       A       A	Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Tendency to return to straight flight  Spontaneous exit  A Spontaneous exit  A Less than 720°, spontaneous exit  A Ves  A Yes  A Yes  A Yes  A Yes  A No  A No  Cascade occurs  A No  A No		Stable flight	Α	Stable flight	Α
Turn angle to recover normal flight  Less than 720°, spontaneous recovery  Less than 720°, spontaneous recovery  Less than 720°, spontaneous recovery  A Yes  A Yes  A Yes  A Yes  A Procedure suitable for novice pilots  A Yes  A Yes  A Procedure suitable for novice pilots  A No  A No  A No  A No  A Procedure suitable for novice pilots  A No	22. Behaviour exiting a steep spiral	Α			
recovery Sink rate when evaluating spiral stability [m/s] 19 22 23. Alternative means of directional control A 180° turn achievable in 20 s Stall or spin occurs No A 24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described Yes A Procedure suitable for novice pilots Yes A Cascade occurs No A Cascade occurs No A Recovery  22  A Yes A Yes A Yes A Yes A Yes A Cascade occurs A No A No A No A	Tendency to return to straight flight	Spontaneous exit	Α	Spontaneous exit	Α
23. Alternative means of directional control  180° turn achievable in 20 s  Yes  No  No  A  24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described  Yes  Yes  A  Yes  A  Yes  A  Yes  A  Yes  A  Cascade occurs  No  No  A  No  A  No  A  Yes  A  Yes  A  Yes  A  Yes  A  Yes  A  Yes  A	Turn angle to recover normal flight		Α		Α
180° turn achievable in 20 s Yes A Yes A No A No A 24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described Yes A Yes A Procedure suitable for novice pilots Yes A Yes A Cascade occurs No A No A No A No A Secondary of test pilot	Sink rate when evaluating spiral stability [m/s]	19		22	
Stall or spin occursNoANoA24. Any other flight procedure and/or configuration described in the user's manualASecondary of the user's manualProcedure works as describedYesAYesAProcedure suitable for novice pilotsYesAYesACascade occursNoANoA25. Comments of test pilot	23. Alternative means of directional control	A			
24. Any other flight procedure and/or configuration described in the user's manual       A         Procedure works as described       Yes       A       Yes       A         Procedure suitable for novice pilots       Yes       A       Yes       A         Cascade occurs       No       A       No       A         25. Comments of test pilot	180° turn achievable in 20 s	Yes	Α	Yes	Α
described in the user's manualProcedure works as describedYesAYesAProcedure suitable for novice pilotsYesAYesACascade occursNoANoA25. Comments of test pilot	Stall or spin occurs	No	Α	No	Α
Procedure suitable for novice pilots Yes A Yes A Cascade occurs No A No A  25. Comments of test pilot		Α			
Cascade occurs No A No A  25. Comments of test pilot	Procedure works as described	Yes	Α	Yes	Α
25. Comments of test pilot	Procedure suitable for novice pilots	Yes	Α	Yes	Α
	Cascade occurs	No	Α	No	Α
Comments	25. Comments of test pilot				
	Comments				