



European Aviation Safety Agency

EASA

**TYPE-CERTIFICATE
DATA SHEET**

EASA.A.574

SZD-54 „Perkoz“

Allstar PZL Glider Sp. z o.o.

ul. Cieszyńska 325
43-300 Bielsko-Biała
POLAND

For models: SZD-54-2 “Perkoz”

Issue 02: 31 October 2014

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SECTION A: SZD-54-2 “Perkoz”

A.I. General

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|---------------------------------------|--|
| 1. Data Sheet No.: | EASA.A.574 |
| 2. a) Type: | SZD-54 “Perkoz” |
| b) Model: | SZD-54-2 “Perkoz” |
| c) Variant: | |
| 3. Airworthiness Category: | Sailplane - Utility (U) and Aerobatic (A) Category |
| 4. Manufacturer: | Allstar PZL Glider Sp. z o.o. |
| 5. Certification Application
Date: | 06 July 2010 |
| 6. EASA Certification Date | 20 November 2013 |

A.II. EASA Certification Basis

- | | |
|--|---|
| 1. Reference Date
for determining the
applicable requirements: | 06 July 2010 |
| 2. Airworthiness Requirements: | Certification Specifications for Sailplanes
and Powered Sailplanes CS-22,
Amendment 2, 5 March 2009 |
| 3. Special Conditions: | None |
| 4. Exemptions: | None |
| 5. Deviations: | None |
| 6. Equivalent Safety Findings: | None |
| 7. Requirements elected to
comply: | None |
| 8. Environmental Standards: | None |

A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition:
 - List of Drawings, Document No. 542.3.02, issue 2, 10.02.2014, or later approved revision.
 - Equipment List, Document No. 542.1.05, issue 2, 12.04.2014, or later approved revision.
2. Description: Two-seat trainer sailplane of utility and aerobatic category. Cantilever mid-wing monoplane with classic tail unit. Wings are equipped with three kinds of replaceable wingtips: 1. short and flat wingtips, 2. winglets, 3. long wingtips with winglets and additional aileron segments. All composite structure, mainly GFRP (CFRP in minor units). Fixed tandem-type landing gear with nose wheel and auxiliary tail wheel.

3. Equipment: Refer to the Technical Service Manual, Section 8.

4. Dimensions:

Wingtips:	short and flat or winglets	long with winglets
Span:	17,50 m	20,00 m
Length:	8,44 m	8,44 m
Wing area:	16,36 m ²	17,30 m ²

5. Launching Hooks: Nose tow hook: TOST E
Winch hook: TOST G
6. Weak links: Ultimate strength for aero-towing: 677+10% daN
Nominal strength for winch launching: 677±10% daN

7. Load factors:

- 7.1 Utility category +5,3 / -2,65 (up to V_A)
+4,0 / -1,5 (up to V_{NE})
- 7.2 Aerobatic category +7,0 / -5,0 (up to V_{NE})
- 7.3 Airbrakes extended +3,5 / -1,5 (up to V_{NE})

8. Air Speeds:

	Category	U	A
IAS [km/h]	Never Exceed Speed	V _{NE} 244	266
	Rough Air Speed	V _{RA} 160	190
	Manoeuvring Speed	V _A 160	190
	Max. Aero-tow Speed	V _T 150	150
	Max. Winch-launch Speed	V _W 140	140

9. Operational Capability: Approved for VFR-day conditions.
Cloud flying permitted in accordance with binding regulations.

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|---|---|
| 10. Maximum Masses: | Utility category: 585 kg
Aerobatic category: 565 kg |
| 11. Centre of Gravity Range: | Forward limit: 273 mm aft of datum
(23,5% MAC for span 17,5 m or 23,3% MAC for span 20,0 m)
Rearward limit: 495 mm aft of datum
(46,0% MAC for span 17,5 m or 46,4% MAC for span 20,0 m) |
| 12. Datum: | Vertical plane going through leading points of wing root aerofoil section |
| 13. Levelling Means: | Wing root aerofoil section chords or wedge 27/1000 on the slope of top rear fuselage to be horizontal |
| 14. Control surface deflections: | Refer to Technical Service Manual, Section 6. |
| 15. Minimum Flight Crew: | 1 pilot |
| 16. Maximum Passenger Seating Capacity: | 2 seats
(1 pilot + 1 passenger) or (2 pilots) |
| 17. Baggage/Cargo Compartments: | Baggage compartment aft of rear seat;
max. allowable load: 17 kg |
| 18. Wheels and Tyres: | |
| 18.1 Main wheel | TOST 5” disc brake wheel 122-25
tire: Michelin 5.00-5/10/120 (or analogue) |
| 18.2 Nose wheel | Allstar PZL Glider CT.I5.00.00
tire: Stomil 255×110 (or analogue) |
| 18.3 Tail wheel | Allstar PZL Glider CT.I9.01.00
tire: Agromech 200×50 (or analogue) |

A.IV. Operating and Service Instructions

1. Flight Manual:
 - *INSTRUKCJA UŻYTKOWANIA W LOCIE szybowca SZD-54-2 „Perkoz”, Dokument nr 542.4.01, wydanie II, Kwiecień 2014*
 - FLIGHT MANUAL for a sailplane SZD-54-2 “Perkoz”, Doc. No. 542.4.01, issue II, April 2014
2. Technical Manual:
 - *INSTRUKCJA OBSŁUGI TECHNICZNEJ szybowca SZD-54-2 „Perkoz”, Dokument nr 542.4.02, wydanie II, Kwiecień 2014*
 - TECHNICAL SERVICE MANUAL for a sailplane SZD-54-2 “Perkoz”, Doc. No. 542.4.02, issue II, April 2014
3. Instruments and aggregates:
 - Operating Manual for the TOST Release (for release types installed), latest approved revision.
 - Installation and Operating Manual for TOST Aircraft Wheels, latest approved revision.
 - *Sygnalizator przeciągnięcia ANTI-STALL SP3. Instrukcja Obsługi Technicznej, Wyd. I, 23.03.1995 r.*
 - Stall Monitor Anti-Stall SP3. Installation and Service Manual, 1-st Edition, 23.03.1995.
 - *Sygnalizator przeciągnięcia ANTI-STALL SP3. Instrukcja Użytkowania w Locie, Wyd. I, 23.03.1995 r.*
 - Stall Monitor Anti-Stall SP3. Flight Manual, 1-st Edition, 23.03.1995.

A.V. Notes:

1. This TCDS, Section A applies to S/N 542.A.yy.nnn, starting from 542.A.11.002 where:
yy - the year of an aircraft manufacture,
nnn - the successive aircraft number.
2. All glider outside surfaces must be white painted. No registration number or any colour marks on the wings and stabilizer upper surfaces are allowed.

ADMINISTRATIVE SECTION

I. Acronyms

CFRP	Carbon Fibre Reinforced Plastic
GFRP	Glass Fibre Reinforced Plastic
MAC	Mean Aerodynamic Chord
S/N	Aircraft Serial Number
VFR	Visual Flight Rules

II. Type Certificate Holder Record

Allstar PZL Glider Sp. z o.o.
ul. Cieszyńska 325
43-300 Bielsko-Biała
POLAND

III. Change Record

Issue	Date	Changes
Issue 01	20 November 2013	Initial issue
Issue 02	31 October 2014	Major Change - New long wingtip extensions - and several minor changes as detailed in the EASA CRI A-01, release 3.