

PERMIT TO FLY

FOR PROTOTYPE GLIDERS IN PARAGLIDING WORLD CUP EVENTS

1. Manufacturer

Name: **SOL SPORTS IND. E COM. LTDA**
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Represented by: **Ary Carlos Pradi**

allows the following pilot:

Pilot Name: _____
Pilot Email: _____
World Cup Pilot number: _____

to fly the following prototype glider:

Glider model name: **TRACER 22**
Size and colors: _____ S WHITE _____
Serial Number: _____ 12025 _____

2. Glider maintenance

- ! maximum interval between line change: **1 Year (Yearly check) or 100hs**
- ! date of last line change: _____ / _____ / _____
- ! date of next line change: _____ / _____ / _____
- ! maximum full glider control interval: **1 Year (Yearly check) or 100hs**
- ! date of last full glider control: _____ / _____ / _____
- ! date of next full glider control: _____ / _____ / _____

3. Line technical specifications

| | Main Lines | Middle Lines (1) | Middle Lines (2) | Top Lines (3) |
|--|--|--|------------------|----------------------|
| Line manufacturer | Cousin Trestec EDELRID | Cousin Trestec EDELRID | | EDELRID |
| Line model | Cousin Vectran-1,2 Cousin Vectran-1,0 Edelrid 7000-045 | Cousin Vectran-0,9 Edelrid 7000-065 Edelrid 7000-045 | | 7000-065 7000-045 |
| Diameter [mm] | Vectran 1,2 mm Vectran 1,0 mm Edelrid 0,45mm | Vectran 0,9 mm Edelrid 0,65 mm Edelrid 0,45 mm | | 0,65 mm 0,45 mm |
| Breaking strength min unsewn [daN] | 165kg 107kg 46kg | 95 kg 67 kg 46 kg | | 67 kg 46 kg |
| Strength after 5000 bending cycles [daN] | 122kg 89kg 26kg | 67 kg 44 kg 26 kg | | 44 kg 26 kg |
| Material core | | | | |
| Material sheath | Vectran Vectran Technora | Vectran Technora Technora | | Technora Technora |

4. Breaking strength verification

4.1 Mainlines, gliders with 4 and / or 5 mainline levels

| Number of A-mainlines | Number of B-mainlines | Number of A+B mainlines | Total lines (A+B) x Line strength >8 x max. Start weight. And > 800 kg | |
|-----------------------|-----------------------|-------------------------|--|--|
| x | x | x | | |
| Number of C-mainlines | Number of D-mainlines | Number of E-mainlines | Number of C+D+E mainlines | Total lines C+D+E x Line strength >6 x max. Start weight. And > 600 kg |
| x | x | x | | |

1 Line strength after bending cycles [daN]

4.2 Mainlines, gliders with 3 mainline levels

| Number of A-mainlines | Number of B-mainlines | Number of A+B mainlines | Total lines (A+B) x Line strength >10 x max. Start weight And > 1000 kg |
|-----------------------|--------------------------------|--------------------------------|---|
| 2 x 1,2 4 x 1,0 | 2 x 1,2 4 x 1,0 2 x 0,45 | 4 x 1,2 8 x 1,0 2 x 0,45 | $(4 \times 122) + (8 \times 89) + (2 \times 26) = 1252 / 10 = 125,2$ |
| | Number of C-mainlines | | |
| x | 6 x 1,0 | x | Total lines C x Line strength >4 x max. Start weight. And > 400 kg $(6 \times 89) = 534 / 4 = 133,5$ |

1 Line strength after bending cycles [daN]

4.3 Verification of line strength for gallery lines

| | Number 2 of lines x line strength per gallery level > line strength of the corresponding main line | | | |
|-----------|---|---|---|--------------|
| | Main line | 1 st Gallery | 2 nd Gallery | 3 rd Gallery |
| A - Lines | A1= 165 kg A2= 107 kg A3= 107 kg | A1=2x95 = 190 kg A2=2x67 = 134 kg A3=2x67 = 134 kg | A1=4X67 = 268 kg A2=4X67 = 268 kg A3=4X67 = 268 kg | x |
| B - Lines | B1= 165 kg B2= 107 kg B3= 107 kg Stab = 46 kg | B1=2x95 = 190 kg B2=2x67 = 134 kg B3=2x67 = 134 kg Stab=3x46= 138 kg | B1=4X67 = 268 kg B2=4x67 = 268 kg B3=4x67 = 268 kg Stab=6x46=276kg | x |
| C - Lines | C1 = 107 kg C2 = 107 kg C3 = 107 kg | C1=2X67 = 134 kg C2=2x67 = 134 kg C3=2x67 = 134 kg | C1=4X46 = 184 kg C2=4x46 = 184 kg C3=4x46 = 184 kg | x |
| D - Lines | | | | x |

2 Should the stabilizer line belong to this line set then it is to be included here (when of the same material and line diameter).



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5. Production tolerances

Points listed above under line specifications must remain constant throughout production. In addition, the following details must also remain constant:

- . Line construction
- . Number of core braids
- . Number of sheath braids
- . Core weave and braid lengths
- . Sheath weave and braid lengths
- . Mechanical/chemical surface treatment

Should tolerance deviations be noted due to other parameters, these must be documented on a separate page and added to this form.

We, the manufacturer confirm that the glider has been built in accordance with the line specifications given above.
We, the manufacturer are not aware of any circumstances that might adversely affect the airworthiness of this glider.

This PERMIT TO FLY is valid for 1 year from the date of issue.

Jaraguá do Sul, 10 / 05 /2010

Pilots Signature

Manufacturer Signature and Stamp

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