Paragliders shock and sustained loading test

Inspection certificate number:	**PG_2184.2023**	**Test Report**

Manufacturer data

Manufacturer name:	**Sol Paragliders - SOL SPORTS Ind. e Com. Ltda**
Representative:	**Ary Carols Pradi**
Street:	**Rua Walter Marquardt,1180**
Post code / place:	**Cep 89259-565 Jaraguá do Sul, SC**
Country:	**Brazil**

Sample data

Name:	**Cyclus 2**
Size:	**XL**
Maximum weight in flight [kg]:	**125**
Serial number:	**25216**
Date of reception:	**25.01.2023**

Test data

Test Atmosphere AGL

Place of test:	**Yverdon (airport)**	**-5**	[°C]
Date of test:	**16.02.2023**	**74**	RH [%]
Inspector:	**Nicolas Jacquod**	**978**	[hPA]
		0.1	Wind [m/s]

Shock loading test result [(1)]

Weak link used [daN]:	**1000**		
Visual inspection:	**No visible damage**	Results:	**POSITIVE**

Weak link

Instruments	Validity	Manufacturer	s/n
Weak link	continously	Tost	n/a
Ultrawire DSK99	29.10.2023	Gottifredi	n/a
Geos n° 11 Skywatch	18.06.2025	JDC elec.	Unit11

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Detailed sustained loading test results

Cumulative duration at max load [s]:	**3.2**
Max calculated load value for a duration of 3 sec. [N]:	**1321.23**
Max calculated load value for a duration of 3 sec. [kg]:	**134.68**
Max calculated load value with five peaks [N]:	**n/a**
Max calculated load value with five peaks [kg]:	**n/a**
Max calculated load value with 3 sec or five peaks [N]:	**1321.23**
Max calcultaed load value with 3 sec or five peaks [kg]:	**134.68**

Sustained loading test diagram
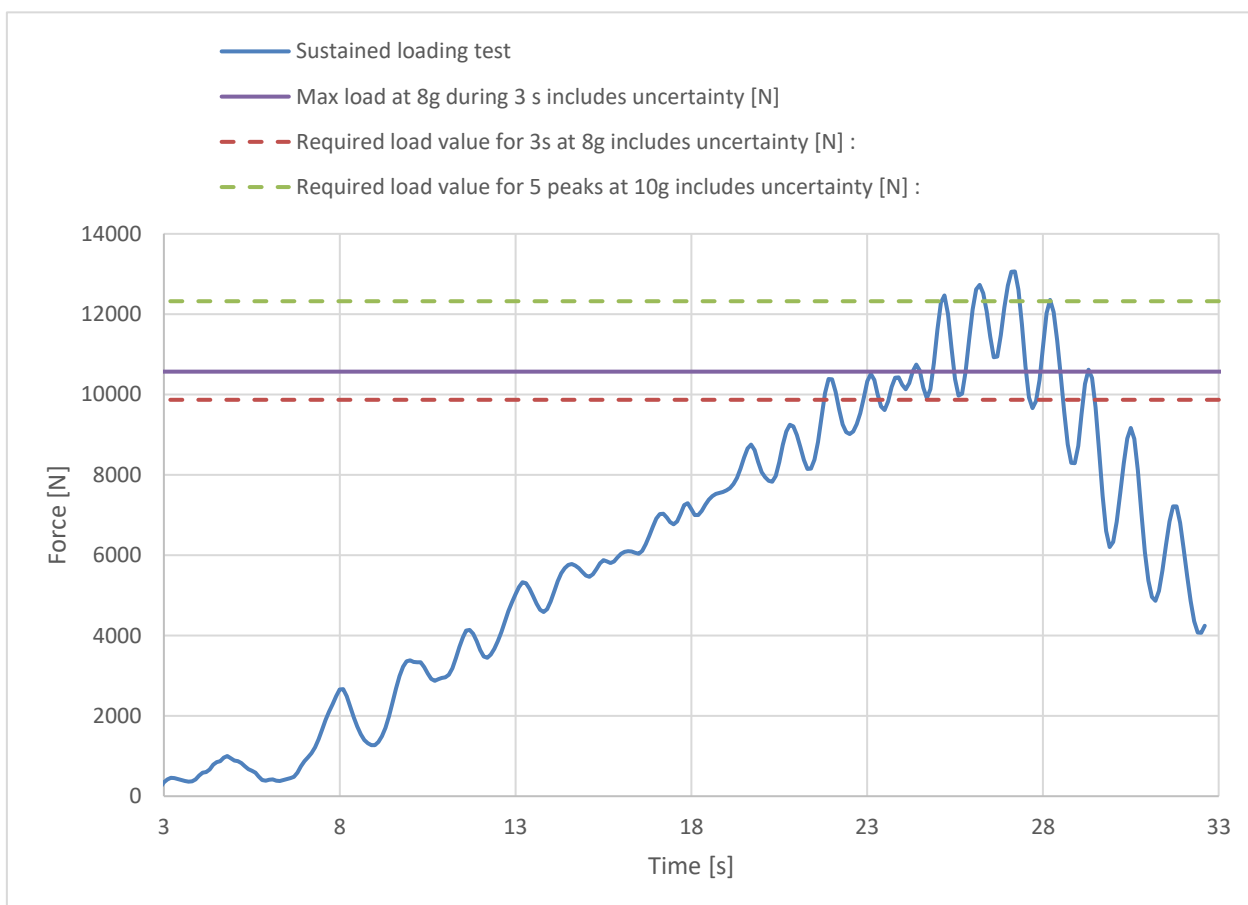
Sustained loading test results (3)

Result:	**POSITIVE**
Calculated max load value with 3 sec or five peaks [kg]:	**134.68**

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Instruments	Manufacturer	Validity	S/N
Load sensor	HBM	04.09.2023	31314652
Geos n°11 Skywatch	JDC	18.06.2025	Unit11

The validation of this test report is given by the signature of the test manager on inspection certificate 91.20

Air Turquoise SA has thoroughly tested the sample of paraglider mentioned above and certifies its conformity with the standards **EN 926-1:2015 | NfL 2-565-20**

(1) The paraglider is subjected to a shock load. Shock load is limited using a weak link according to the weight range of the glider. The weak link breaks or 5 s has elapsed since the start of the shock load. The wing is then visually inspected for damage.

(2) The weak link value includes the uncertainty for the weight range test values / The uncertainty state is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measurand lies within the assigned range of values with a probability of 95%.

(3) The test specimen (sample) is attached to the electronic sensors on the tow vehicle.
A controller is positioned on the tow vehicle in order to operate the paraglider control lines to stabilize the wing.
The speed of the vehicle is increased as gradually as possible, enabling the controller to obtain satisfactory stabilisation of the flight path of the paraglider.
When the paraglider has stabilized, the speed is increased gradually until either:
a) the measured load exceeds a load factor of eight times the maximum total weight in flight recommended by the manufacturer, for a minimum cumulative duration of 3 s; or
b) five peaks separated by at least 0,3 s are obtained above ten times the maximum total weight in flight recommended by the manufacturer, in one run.

(4) The calculated value include the value minus the uncertainty / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measurand lies within the assigned range of values with a probability of 95%.