#### AIR TURQUOISE SA | PARA-TEST.COM

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Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



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# PG PARAGLIDERS

### INSPECTION CERTIFICATE

Inspection certificate number: PG\_1019.2016

MANUFACTURER DATA

Manufacturer name: Niviuk Gliders

Representative Dominique Cizeau

Street: C. Del Ter, 6-Nave D

Post code / place: 17165 La Cellera de Ter Girona

Country: Spain

SAMPLE DATA

Name: IKUMA P Size:

Min weight in flight [kg]: 80 Max weight in flight [kg]: 100

Weight [kg]: 3.8 Use: Single-seater

Load serial number: Ikuma P 1-25 pattern V1 Date of reception: 29.12.2015
Flight serial number: Ikuma P 1-25 pattern V2 Date of reception: 29.12.2015

TEST REPORT SUMMARY RESULTS PLACE DATE

PG 1 71.8.1 | SHOCK LOAD TEST: POSITIVE Yverdon(airport) 08.03.2016

PG 2 71.8.1 | SUSTAINED LOAD TEST: POSITIVE Yverdon(airport) 08.03.2016

PG 3 71.8.2 | FLIGHT TEST: B Villeneuve 29.03.2016

PG 4 71.4.3 | MEASUREMENT: POSITIVE Villeneuve 19.01.2016

PG 5 71.6.3 | LINE BREAK STRENGTH: POSITIVE Villeneuve 12.05.2016

**ISSUE DATA** 

Place of declaration: Villeneuve

Date of issue: 13.05.2016

Managing Director: Alain Zoller

Signature:

This signature aprouve the validity of the test reports PG 1 to PG 5 (Only if test report are applicable).

Air Turquoise SA, having thoroughly assessed the sample mentioned hereunder, declare it was found conform with all requirements defined by the following norms:

EN 926-2:2013 / EN 926-1:2015 / LTF: NFL II 91/09 / 2-60-14 / 2-251-16

Present declaration's scope only extends to the conformity of a given sample, on a given date and in a given place as mentioned here above.

This inspection report contain the following test and is complete with the test report number: 71.8.1 | PG1, PG2, 71.8.2 | PG3, 71.4.3 | PG4, 71.6.3 | PG5 (71.8.1 | PG1 and PG2, 71.8.2 are done for one size only, ref. to the size tested for strength)

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### SHOCK LOADING TEST

#### **TEST REPORT PG 1**

## **PG PARAGLIDERS**

Test report ref. number: PG\_1019.2016

SAMPLE DATA

Manufacturer name: Niviuk Gliders

Representative Dominique Cizeau

Street: C. Del Ter, 6-Nave D

Post code / place: 17165 La Cellera de Ter Girona

Country: Spain

SAMPLE DATA

Name: IKUMA P

Size: 25

Maximum load [kg]: 100

Serial number: Ikuma P 1-25 pattern V1

Date of reception: 29.12.2015

**TEST DATA** 

Place of test: Yverdon(airport)

Date of test: 08.03.2016 Inspector: Alain Zoller

Results: POSITIVE

Directive: EN 926-1:2015 chapter 4.5 | LTF NFL II-91/09 - 2-251-16 chapter 3

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

TEST RESULTS:		TEST ATMOSPHERE AGL	
Weak link used [daN]:	1000	[C°]	-0.2
Visual inspection:	No visible damages	RH [%]	80
		[hPa]	961.4
Uncertainty k=2 [%]	10	Wind [m/s]	0.1

Weak link value include the uncertainty for weight range test values (on safe side) / 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%.

#### **WEAK LINK**



INSTRUMENTS	Validity	Manufacturer	s/n
Weak link	2020	Tost	n/a
Cable	2020	Rotex	n/a
Geos n° 11 Skywatch	08.05.2017	JDC elec.	22

The validation of this test report is given by the signature of the test manager on inspection certificate 71.8.1

# SUSTAINED LOADING TEST

#### **TEST REPORT PG 2**

#### PG PARAGLIDERS

PG\_1019.2016 Test report ref. number:

MANUFACTURER DATA

Manufacturer name: **Niviuk Gliders** 

> **Dominique Cizeau** Representative

> > C. Del Ter, 6-Nave D Street:

17165 La Cellera de Ter Girona Post code / place:

> Spain Country:

SAMPLE DATA

Name: **IKUMA P** 

25 Size:

Maximum load [kg]: 100

> Serial number: Ikuma P 1-25 pattern V1

Date of reception: 29,12,2015

**TEST DATA** 

Place of test: Yverdon(airport)

Date of test: 08.03.2016

> Alain Zoller Inspector:

Results: POSITIVE

Directive: EN 926-1:2015 chapter 4.5 | LTF NFL II-91/09 - 2-251-16 chapter 3

The test specimen 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:

1) 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

2) 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.

#### **TEST ATMOSPHERE AGL**

[C°] -0.2

RH [%] 80

> [hPa] 961.4

Wind [m/s]

### RESULTS

Required breaking strength value for 3s at 8g [N] 7848.00

Required breaking strength value for 5 pics at 10g [N]

9810.00

Required breaking strength value for 3s at 8g at coef. 0.9 [N] 7063.20

Required breaking strength value for 5 pics at coef. 0.9 [N] 8829.00

> Uncertainty K=2 [%] 0.5

Calculed cumulative duration breaking strength value [s]

15.62

Calculed max load value with 3 sec or five peaks [kg] 156.00

Calculed value include the value minus the uncertainty (on safe side) / 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%.

The validation of this test report is given by the signature of the test manager on inspection certificate 71.8.1

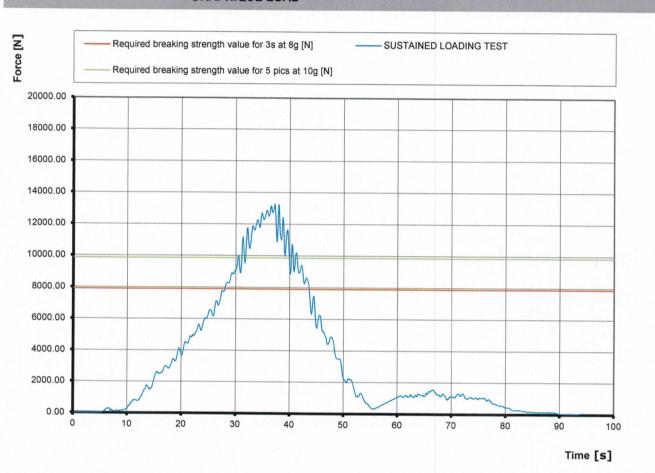
# SUSTAINED LOADING TEST

### **TEST REPORT PG 2**

## **PG PARAGLIDERS**

Test report ref. number: PG\_1019.2016

#### **GRAPHIQUE LOAD**



#### DETAILED RESULTS

Calculed max load value duration of 3 sec. [N] 1530.4
Calculed max load value duration of 3 sec. [kg] 156.0
Calculed max load value with five peaks [N] 1281.5
Calculed max load value with five peaks [kg] 130.6

Calculed max load value with 3 sec or five peaks [N] 1530.4
Calculed max load value with 3 sec or five peaks [kg] 156.0

Instruments	Manufacturer	Type nr.	S/N
Load sensor	НВМ	1-S9M/50KN-1	31314652
Geos n°11 Skywatch	JDC	Geos n° 11	0022

The validation of this test report is given by the signature of the test manager on inspection certificate 71.8.1