



Speed of opening, stability, descent rate

Inspection certificate number: **EP_187.2017**

Test Report

Manufacturer data

Manufacturer name: **U-Turn GmbH**
 Representative: **Ernst Strobl**
 Street: **Im Neuneck 1**
 Post code / Place: **78609 Tuningen**
 Country: **Germany**

Sample data

Name:	Backup X	Size:	100
Steerable	No	Maximum weight in flight ⁽¹⁾ [kg]:	100
Weight ⁽²⁾ [kg]	1.06	volume packed [cm ³]:	3850
Serial number:	SK-Backup X-100-11C-1001		

Test data ⁽³⁾

	Test no. 1	Test no. 2
Place of test	Villeneuve	n/a
Date of test	13.03.2017	
Inspector:	Claude Thurnheer	

Atmosphere AGL

[°C]	7.1
RH [%]	80
[hPa]	977
Wind [m/s]	0.1

Summary of both results ⁽⁴⁾

	LTF
Time of opening test [s]:	2.71
Calculated descent rate test [m/s]:	6.09
Stability test:	POSITIVE
Behaviour during descent test:	Stable

Strength test - 40 m/s opening shock

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 Country: **Germany**

Sample data

Name: **Backup X** Size: **100**
 Steerable: **No** Maximum weight [kg]: **100**
 Weight [kg]: **1.06** volume packed [cm³]: **3850**
 Serial number: **AK-Backup X-100-11C-1004**

Test data ⁽¹⁾

	Test no. 1	Test no. 2
Place of test	Illarsaz	Illarsaz
Date of test	08.03.2017	29.03.2017
Corrected mass [kg]	99.53	96.36
Inspector:	Alain Zoller	Alain Zoller

Atmosphere AGL

	Test no. 1	Test no. 2
[°C]	9.6	18.5
RH [%]	75	59
[hPa]	980.6	979
Wind [m/s]	0.1	0.2

Test results

	Test no. 1	Test no. 2
Speed of opening (maximum 5 s)	POSITIVE	POSITIVE
Strength test (40m/s shock)	POSITIVE	POSITIVE
Aircraft speed uncertainty K=2 [m/s] ⁽²⁾	1.7	1.7

Item / type no.	Validity	Manufacturer	S/N
Weight	2020	Air Turquoise SA	N/A
Geos n° 11	08.05.2017	JDC elec.	22
Weak link	2020	Tost	N/A



Result summary

Inner container strength test. Applied minimum 700 N for at least 10 seconds and at maximum strength.
 Duration at the required strength: **14.2 [s]**
 The maximum strength before broken: **858.0 [N]**

Place of declaration
 Date of issue:
 Managing director

Villeneuve
28.07.2017
Alain Zoller

Signature:

This signature approve the validity of the test report, and can be included in the inspection certificate 71.5.1

Air Turquoise SA has thoroughly tested the sample of riser/bridle mentioned above and certifies its conformity with the standards: EN 12491 | 2001 chapter 5.3.2 and LTF 91/09 chapter 6.1.8

Instrument	Validity	Manufacturer	Type no.	S/N
Load Cell (axial)	01.06.2021	Burster GmbH (DE)	8431-10000	1185483
Winch	11.01.2018	Arwin	300/600	N/A
Geos n° 11 Skywatch	08.05.2017	JDC elec.	Geos n° 11	22

⁽¹⁾ Inner container: container of the folded emergency parachute.

⁽²⁾ Inner container (the connection between handgrip and inner container) is loaded at min 700 [N] over 10 secondes. The deployment system is loaded until breaking. Each component is tested.

⁽³⁾ Calculated 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%.



Identification number: **MISC_046.2017**

U-Turn GmbH Backup X

Result summary

Maximum strength for riser, bridle **28564.0 [N]**

Place of declaration **Villeneuve**
Date of issue: **28.07.2017**
Managing director **Alain Zoller**

Signature:

This signature approve the validity of the test report, and can be included in the inspection certificate 71.5.1

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the standards: **LTF NFL II 9/09 chapter 6.1.4**

Instrument	Validity	Manufacturer	Type no.	S/N
Load sensor	14.10.2017	HBM	1-S9M/50KN-1	31314652
Geos n° 11 Skywatch	08.05.2017	JDC elec.	Geos n° 11	22

⁽¹⁾ Riser: lowest part of the parachute system, which is connected to harness. Bridle: connection between riser and harness, can also be a strap.

⁽²⁾ The connecting strap has to have a minimum load capacity of 24000 [N]. The exposed part of the connecting belt has to be protected against environmental factors.

⁽³⁾ Calculated 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%.