



Speed of opening, stability, descent rate

Inspection certificate number: **EP_251.2019**

Test Report

Manufacturer data

Manufacturer name: **Davinci Products Inc.**
 Representative: **Jihun Lee**
 Street: **53 sinchon-gil, Okcheon-myeon, Yangpyeong-gun**
 Post code / Place: **Gyeonggi-do 12505**
 Country: **Republic of Korea**

Sample data

Name:	Comma	Size:	L
Steerable ⁽¹⁾	No	Maximum weight in flight ⁽²⁾ [kg]:	130
Weight ⁽³⁾ [kg]	2.23	volume packed [cm ³]:	5800
Serial number:	RCM-S90506		

Test data ⁽⁴⁾

	Test no. 1	Test no. 2
Place of test	Villeneuve	Villeneuve
Date of test	10.07.2018	31.07.2018
Inspector:	Claude Thurnheer	Alain Zoller

Atmosphere AGL

	24	28
[°C]		
RH [%]	69	64
[hPa]	972.2	973.6
Wind [m/s]	0.1	0.1

Summary of both results ⁽⁵⁾

	EN	LTF
Time of opening test [s]:	3.98787382	3.98787382
Calculated descent rate test [m/s]:	5.49	5.49
Stability test:	POSITIVE	POSITIVE
Behaviour during descent test:	Stable	Stable
Glider ratio:	POSITIVE	

If steerable:

Any flight procedure and/or configuration described in the user's manual	N/A	N/A
--	------------	------------



Strength test - 40 m/s opening shock

Inspection certificate number: **EP_251.2019**

Test Report

Manufacturer data

Manufacturer name: **Davinci Products Inc.**
 Representative: **Jihun Lee**
 Street: **53 sinchon-gil, Okcheon-myeon, Yangpyeong-gun**
 Post code / Place: **Gyeonggi-do 12505**
 Country: **Republic of Korea**

Sample data

Name: **Comma** Size: **L**
 Steerable: **No** Maximum weight [kg]: **130**
 Weight [kg]: **2.23** volume packed [cm³]: **5800**
 Serial number: **RCM-L91201**

Test data ⁽¹⁾

	Test no. 1	Test no. 2
Place of test	Muraz	Muraz
Date of test	14.02.2019	14.02.2019
Corrected mass [kg]	133.37	133.37
Inspector:	Alain Zoller	Alain Zoller

Atmosphere AGL

[°C]	3.5	3.5
RH [%]	72	72
[hPa]	991.3	991.3
Wind [m/s]	0.1	0.1

Test results

	Test no. 1	Test no. 2
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



Identification number: **MISC_080.2018**

Davinci Products Inc. Comma

Result summary

Maximum strength for riser, bridle **24541.0 [N]**

Place of declaration **Villeneuve**
 Date of issue: **13.08.2018**
 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 91/09 chapter 6.1.4**

Instrument	Validity	Manufacturer	Type no.	S/N
Load sensor	14.10.2019	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 measured lies within the assigned range of values with a probability of 95%.



Identification number: **MISC_094.2018**

Davinci Products Inc. Comma one size

Result summary

Inner container strength test. Applied minimum 700 N for at least 10 seconds and at maximum strength.
 Duration at the required strength: **21.1 [s]**
 The maximum strength before broken: **1015.0 [N]**

Place of declaration **Villeneuve**
 Date of issue: **14.08.2018**
 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 riser/bridle mentioned above and certifies its conformity with the standards: **EN 12491: 2015 chapter 5.3.2 and LTF NFL 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	check every 12 month	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 seconds. 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 measured lies within the assigned range of values with a probability of 95%.