

Speed of opening, stability, descent rate

Inspection certificate number: EP_352.2023

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# Light** Size: **180**
 Steerable ⁽¹⁾: **No** Maximum weight in flight ⁽²⁾ [kg]: **180**
 Weight ⁽³⁾ [kg]: **2.42** Volume packed [cm³]: **7400**
 Serial number: **SCM180_48562**

Test results ⁽⁴⁾

	Test no. 1	Test no. 2
Measured opening time [s]:	4.31	3.95

Unsteerable parachute and steerable parachute with locked controls (if applicable)

Measured sink rate [m/s] (≤ 5.5):	4.91	4.52
Stability test:	Stable	Stable

Steerable parachute and steerable parachute with unlocked controls (if applicable)

Measured sink rate [m/s] (≤ 4.0):	n/a	n/a
Stability test:	n/a	n/a
Test of steerability:	n/a	n/a

Test data

	Test no. 1	Test no. 2
Place of test	Villeneuve	Villeneuve
Date of test	21.09.2022	11.10.2022
Atmosphere AGL		
[°C]	13	16
RH [%]	69	72
[hPa]	978	979
Wind [m/s]	0.1	0.2
Corrected mass with uncertainty (m_{corr}) [kg]:	175.7	173.2

If steerable with brake lock system

Place of test	n/a	n/a
Date of test	n/a	n/a
Atmosphere AGL		
[°C]	n/a	n/a
RH [%]	n/a	n/a
[hPa]	n/a	n/a
Wind [m/s]	n/a	n/a
Corrected mass with uncertainty (m_{corr}) [kg]:	n/a	n/a

Strength test - 40 m/s opening shock

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 Post code / Place: **Gyeonggi-do 12505**
 Country: **Republic of Korea**

Sample data

Name: **COMMA# Light** Size: **180**
 Steerable: **No** Maximum weight [kg]: **180**
 Weight [kg]: **2.42** Volume packed [cm³]: **7400**
 Serial number: **MSCM180_412586**

Test data ⁽¹⁾

	Test no. 1	Test no. 2
Place of test	St-Cierges	St-Cierges
Date of test	11.04.2023	11.04.2023
Maximum weight [kg]	180	180
Inspector:	Nicolas Jacquod	Nicolas Jacquod

Atmosphere AGL

	Test no. 1	Test no. 2
[°C]	8	7
RH [%]	78	74
[hPa]	968	967
Wind [m/s]	1	0.5

Test results

	Test no. 1	Test no. 2
Strength test (40m/s shock)	POSITIVE	POSITIVE
Aircraft speed uncertainty K=2 [m/s] ⁽²⁾	2.9	2.9

Identification number: **MISC_125.2019**

Davinci Products Inc. Comma Light Riser

Result summary

Maximum strength for riser, bridle **26247.1 [N]**

Place of declaration **Villeneuve**
 Date of issue: **29.05.2019**
 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	04.09.2023	HBM	1-S9M/50KN-1	31314652
Geos n° 11 Skywatch	08.05.2020	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_124.2019**

Davinci Products Inc. Comma Light

Result summary

Inner container strength test. Applied minimum 700 N for at least 10 seconds and at maximum strength.

Duration at the required strength: **10.7 [s]**

The maximum strength before broken: **782.3 [N]**

Place of declaration **Villeneuve**
Date of issue: **29.05.2019**
Managing director **Randi Eriksen**

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)	04/09/2023	Burster GmbH (DE)	8431-10000	1185483
Winch	check every 12 month	Arwin	300/600	N/A
Geos n° 11 Skywatch	08/05/2020	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%.