



## Speed of opening, stability, descent rate

Inspection certificate number: **EP\_182.2017**

**Test Report**

### Manufacturer data

Manufacturer name: **Findsterwalder GmbH**  
 Representative: **Thomas Finsterwalder**  
 Street: **Pagodenburgstrasse 8**  
 Post code / Place: **81247 München**  
 Country: **B.R. Deutschland**

### Sample data

Name:	<b>Target Cross ST</b>	Size:	<b>220</b>
Steerable	<b>Yes</b>	Maximum weight in flight <sup>(1)</sup> [kg]:	<b>220</b>
Weight <sup>(2)</sup> [kg]	<b>2.57</b>	volume packed [cm <sup>3</sup> ]:	<b>7300</b>
Serial number:	<b>17032200002</b>		

### Test data <sup>(3)</sup>

	<b>Test no. 1</b>	<b>Test no. 2</b>
Place of test	<b>Villeneuve</b>	<b>Villeneuve</b>
Date of test	<b>22.05.2017</b>	<b>07.09.2017</b>
Inspector:	<b>Claude Thurnheer</b>	<b>Claude Thurnheer</b>

### Atmosphere AGL

	<b>Test no. 1</b>	<b>Test no. 2</b>
[°C]	<b>15</b>	<b>17</b>
RH [%]	<b>78</b>	<b>59</b>
[hPa]	<b>975.7</b>	<b>975.5</b>
Wind [m/s]	<b>0.1</b>	<b>0.2</b>

### Summary of both results <sup>(4)</sup>

	<b>EN</b>	<b>LTF</b>
Time of opening test [s]:	<b>4.99</b>	<b>4.99</b>
Calculated descent rate test [m/s]:	<b>5.17</b>	<b>5.17</b>
Stability test:	<b>POSITIVE</b>	<b>POSITIVE</b>
Behaviour during descent test:	<b>Stable</b>	<b>Stable</b>

## Strength test - 40 m/s opening shock

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**Test Report**

### Manufacturer data

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 Representative: **Thomas Finsterwalder**  
 Street: **Pagodenburgstrasse 8**  
 Post code / Place: **81247 München**  
 Country: **B.R. Deutschland**

### Sample data

Name: **Target Cross ST** Size: **220**  
 Steerable: **Yes** Maximum weight [kg]: **220**  
 Weight [kg]: **2.57** volume packed [cm<sup>3</sup>]: **7300**  
 Serial number: **17032200003**

### Test data <sup>(1)</sup>

	Test no. 1	Test no. 2
Place of test	<b>Illarsaz</b>	<b>Illarsaz</b>
Date of test	<b>08.12.2016</b>	<b>08.12.2016</b>
Corrected mass [kg]	226.33	226.33
Inspector:	<b>Alain Zoller</b>	<b>Alain Zoller</b>

### Atmosphere AGL

	Test no. 1	Test no. 2
[°C]	<b>2</b>	<b>2</b>
RH [%]	<b>67</b>	<b>67</b>
[hPa]	<b>991.4</b>	<b>991.4</b>
Wind [m/s]	<b>0.2</b>	<b>0.2</b>

### Test results

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



## Additional test for steerable parachutes

Inspection certificate number: **EP\_182.2017**

**Test Report**

### Manufacturer data

Manufacturer name: **Findsterwalder GmbH**  
 Representative: **Thomas Finsterwalder**  
 Street: **Pagodenburgstrasse 8**  
 Post code / Place: **81247 München**  
 Country: **B.R. Deutschland**

### Sample data

Name: **Target Cross ST** Size: **220**  
 Steerable: **Yes** Maximum weight in flight <sup>(1)</sup> [kg]: **220**  
 Weight <sup>(2)</sup> [kg]: **2.57** volume packed [cm<sup>3</sup>]: **7300**  
 Serial number: **17032200002**

### Test data <sup>(3)</sup>

	Test no. 1	Test no. 2
Place of test	<b>Villeneuve</b>	<b>Villeneuve</b>
Date of test	<b>22.05.2017</b>	<b>07.09.2017</b>
Inspector:	<b>Alain Zoller</b>	<b>Alain Zoller</b>

### Atmosphere AGL

[°C]	<b>15</b>	<b>17</b>
RH [%]	<b>78</b>	<b>59</b>
[hPa]	<b>975.7</b>	<b>975.5</b>
Wind [m/s]	<b>0.1</b>	<b>0.2</b>

### Test results

- |   |                 |
|---|-----------------|
| a The emergency parachute is deployed from a paraglider in normal straight flight.                            | <b>POSITIVE</b> |
| b The pilot shall take no action while the behaviour of the parachute and paraglider are observed 200 metres. | <b>POSITIVE</b> |
| c The pilot take action while the behaviour of the parachute and paraglider are observed 200 metres.          | <b>POSITIVE</b> |
| d Any flight procedure and/or configuration described in the user's manual                                    | <b>POSITIVE</b> |

The validation of this test report is given by the signature of the test manager on 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: **EN 12491:2001 chapter 5.3.6 - LTF NFL II 9/09 chapter 6**

(1) Total weight in flight exclude weight of paraglider, also called payload - (2) Weight of the emergency parachute

<sup>(3)</sup> Check whether every other flight procedure and/or configuration described in the user's manual can be flown safely. This can be done during the opening, stability and descent rate test is done

Identification number: **MISC\_259.2023**

**Findsterwalder GmbH Diamond Cross M**

**Result summary**

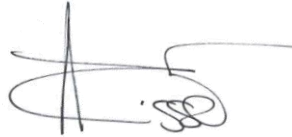
Inner container strength test. Applied minimum 700 N for at least 10 seconds and at maximum strength.

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

Maximum strength before broken: **768.9 [N]**

Place of declaration: **Villeneuve**  
Date of issue: **30.08.2023**  
Managing director: **Andrea Wigger**

Signature:



Instrument	Validity	Manufacturer	Type no.	S/N
Load sensor 10kN SL2	21.04.2026	Burster / MTS	8431-6010-N000S000	593507
Winch	check every 12 month	Arwin	300/600	N/A
Geos n° 11 Skywatch	18.06.2025	JDC elec.	Geos n° 11	22

This signature approves the validity of the test report

**Air Turquoise SA** has thoroughly tested the sample of riser/bridle mentioned above and certifies its conformity with the following standards:  
**EN 12491:2015+A1:2021<sup>(4)</sup> chapter 5.3.2 and NF L 2-565-20 chapter 6.1.8**

<sup>(1)</sup> Inner container: container of the folded emergency parachute.

<sup>(2)</sup> 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.

<sup>(3)</sup> Calculated value includes 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%.

<sup>(4)</sup> This standard is NOT covered by accreditation D-IS-19457-01

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Identification number: **MISC\_025.2017**

**Finsterwalder GmbH Diamond Cross double with brake**

**Result summary**

Maximum strength for riser, bridle **26701.1 [N]**

Place of declaration **Villeneuve**  
Date of issue: **13.02.2017**  
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

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

<sup>(2)</sup> 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.

<sup>(3)</sup> 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%.