



Flight and Load test report - EN 12491:2001

Manufacturer Gradient
Address Pizenská 221/130
 150 00 PRAHA 5
 Czech Republic

Certification number: EP 060.2012
Type/model: GRP1 XL
Total weight in flight: 130 kg

Description of tests	place:	date:	result:
1. Deployment system strength test A load of 700 N between each components	Villeneuve	30.11.2010	OK
2. Speed of opening test - ref. A (2 times) Time from the instant of free drop until a load of 200 N is sustained Opening time Opening time	Villeneuve	08.10.2010 19.11.2010	< 5 seconds < 5 seconds
3. Descent rate and stability test - ref. A and B (2 times) The paraglider is released as the parachute begins to open, minimum 100 m descent. Stability 1 Sink rate 1 Stability 2 Sink rate 2	Villeneuve	08.10.2010 08.10.2010 19.11.2010 19.11.2010	Stable 5.3 m/sec Stable 4.93 m/sec
4. Strength test 40 m/s opening shock (2 times) The drop test device is accelerated to a straight line velocity of 40 m/s and the parachute deployment handle activated using a static line attached to a drogue chute. Speed of opening is less than 5 seconds Test 1 Test 2	Illarsaz	01.07.2009 07.04.2010	OK OK
5. Interaction and stability test (piloted) - ref. C a the emergency parachute is deployed from a paraglider in normal straight flight. b the pilot shall take no action while the behaviour of the parachute and paraglider are observed 200 metres. c the pilot take action while the behaviour of the parachute and paraglider are observed 200 metres.			not available not available not available

The model described is in conformity with the flight and load tests carried out by Air Turquoise SA.



For Air Turquoise SA

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Weather data, ref. 3 and B

Date / place	hPa	wind	temp	humidity
Villeneuve, September 09, 2010	972	0 km/h	11°	54.7%
	<i>Corrected mass:</i> 126.46			
Villeneuve, November 11, 2010				
	<i>Corrected mass:</i> 964.5	0 km/h	8°	61.1%
	126.83			

Reference

A. At horizontal airspeed 8 m/s and vertical speed 1.5 m/s

B. Formula to be used for correcting the test mass ofr differences from ICAO standard atmosphere

$$m_{\text{corr}} := m_{\text{dec}} \cdot \frac{p \cdot T_0}{p_0 \cdot T}$$

Ground level atmospheric pressure at the test location: (p)

ICAO standard atmospheric pressure at MSL: (p₀)

Ground level température at the test location: (T)

ICAO standard temperature at MSL: (T₀)

Total weight in flight: (m_{dec})

Corrected mass: (m_{corr})

C. Only parachute with controls for steering and landing flare



Air Turquoise SA

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