

**FAR / BCAR 31 Compliance Requirements**

31.23 Flight Load Factor	1.4
31.24 Factor of Safety	
(a) Metallic Components	1.5
(b) Fibrous / Webbing	5.0
(b) Anti-tear / Ripstop	2.0
(d) Heating Effects	1.3
BCAR 31.24 Commercial Materials	1.3

**Envelope Parameters**

Maximum Gross Weight (kg)	225.0
Envelope Weight (kg)	14.0
Maximum Suspended Load (kg)	211.0
Base Angle (degrees)	37.0
Number of Gores	16
Vent Hole Diameter (m)	3.0
Mouth Diameter (m)	2.4

**Materials Parameters**

<b>Flying Wires</b>	
Tensile Strength (kg)	550.0
Grade (A)ircraft / (C)ommercial	C
(S)tainless or (K)evlar	K
<b>Fabric</b>	
Test Strength (kg/25mm)	14.0
Grade (A)ircraft / (C)ommercial	C
Anti-Tear / Ripstop (Y /N)	N
<b>Vertical Load Tape</b>	
Tensile Strength (kg)	225.0
Grade (A)ircraft / (C)ommercial	C
<b>Load Ring</b>	
Tensile Strength (kg)	500.0
Grade (A)ircraft / (C)ommercial	C

## FAR / BCAR 31 Compliance Report

	Grade (A) Aircraft or (C) Commercial	Break Force / Tensile Strength	Flight Load 31.23	Actual Safety Factor	Required Safety Factor	OK
Load Ring	C	500.0	122.4	4.1	2.0	YES
Vertical Load Tape	C	225.0	24.0	9.4	8.5	YES
Fabric at Apex	C	14.0	1.0	13.6	8.5	YES
Fabric at Base	C	14.0	1.2	11.4	8.5	YES
Flying Wires	C	550.0	23.1	23.8	6.5	YES

### Notes:

FAR 31 does not provision for the use of commercial grade materials. BCAR 31 provides for their use with an additional safety factor of 1.3. This factor has been applied to all materials which are of commercial grade.