


**This MotoCAP safety rating applies to:**

**Brand:** Alpinestars  
**Model:** Atem V3  
**Type:** Jacket - Leather  
**Date purchased:** 18 July 2018  
**Sizes tested:** L  
**Gender:** M  
**Style:** Sports  
**Test code:** J18L05

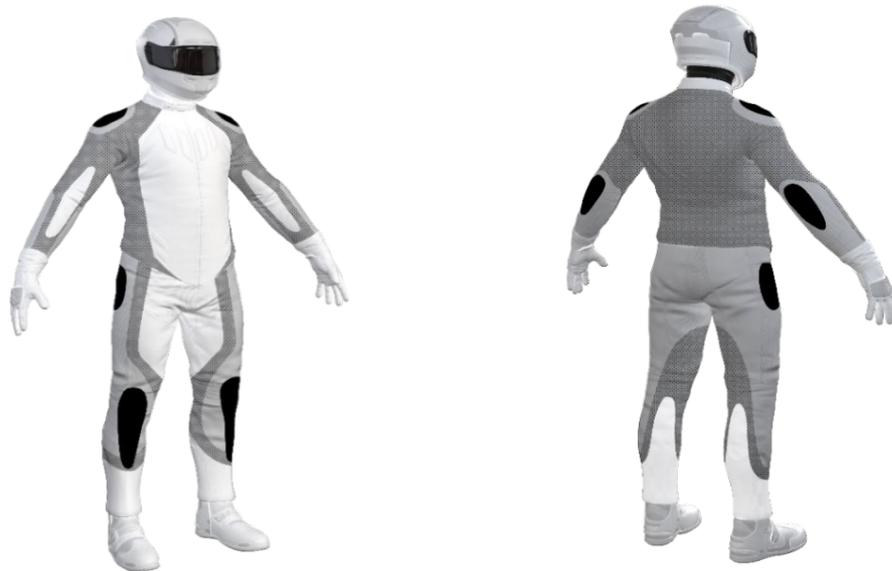
**Test Results Summary:**

	Rating	Result
MotoCAP Protection Rating	★★★★	57.7
Abrasion	8/10	5.73
Burst	10/10	1330
Impact	7/10	52.4
MotoCAP Comfort Rating	★	0.273
Moisture Vapour Resistance		61.5
Thermal Resistance		0.280
Water Resistance	N/A	

This garment is fitted with impact protectors for the elbows and shoulders, with a pocket provided for the addition of an aftermarket back protector. There are panels of perforated leather on the front of the jacket to aid cooling in hot weather.

**Jacket and Pants - Crash Impact Risk Zones**

This diagram is a pictorial representation of the crash impact risk Zones.


**Zone 1**


High risk of abrasion  
High risk of impact

**Zone 2**


High risk of abrasion

**Zone 3**


Medium risk of abrasion

**Zone 4**


Low risk of abrasion

## Abrasion Resistance

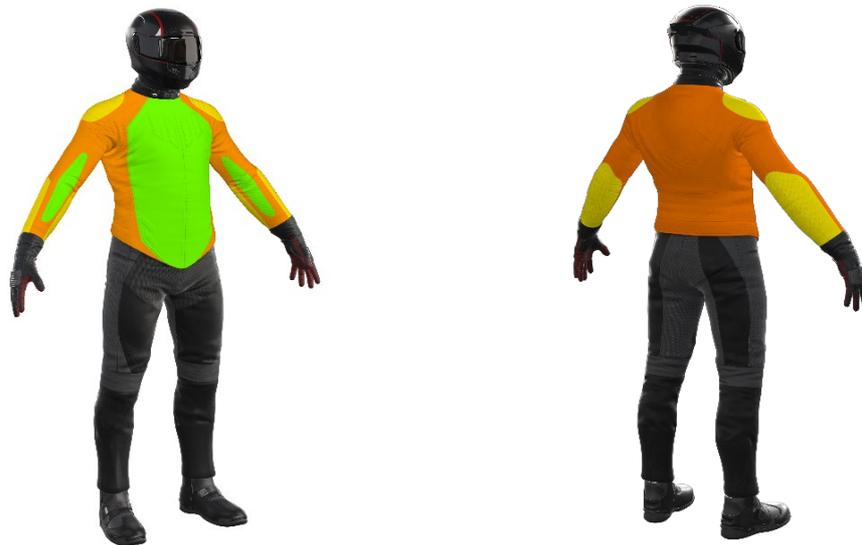
The garment was tested for abrasion resistance following the MotoCAP test protocols. The table below shows the test results for time to abrade through all layers of the materials. Calculated for each sample by Zone, type and area coverage of each material as a proportion of that Zone.

### Details of materials used in garment:

Material A:	Single layer of stretch leather outer and mesh inner liner
Material B:	Single layer of leather outer and mesh inner liner
Material C:	Single layer of leather outer and thick 3D mesh inner liner
Material D:	Stretch fabric outer and mesh inner liner

Zone	Coverage (%)	Abrasion time for each test (s)						Average (s)	
		1	2	3	4	5	6		
<b>Zone 1 and 2 areas (High abrasion risk)</b>									
Material A	10%	10.00	8.41	10.00	9.50	10.00	10.00	9.65	G
Material B	90%	4.29	3.58	4.79	6.08	5.71	5.20	4.94	A
<b>Zone 3 area (Medium abrasion risk)</b>									
Fabric C	65%	7.38	7.40	10.00	7.25	7.46	7.01	7.75	G
Fabric D	35%	1.61	1.95	1.37	1.91	1.29	2.11	1.71	M
<b>Zone 4 area (Low abrasion risk)</b>									
Fabric C	90%	7.38	7.40	10.00	7.25	7.46	7.01	7.75	G
Fabric D	10%	1.61	1.95	1.37	1.91	1.29	2.11	1.71	G

The diagram below is a visual indication of the likely abrasion performance of the materials in each Zone calculated from the data in the table above.



Determining Criteria		Good	Acceptable	Marginal	Poor
High abrasion risk	Zone 1/2:	> 5.6	3.0 - 5.6	1.3 - 2.9	< 1.3
Medium abrasion risk	Zone 3:	> 2.5	1.8 - 2.5	0.8 - 1.7	< 0.8
Low abrasion risk	Zone 4:	>1.5	1.0 - 1.5	0.4 - 0.9	< 0.4

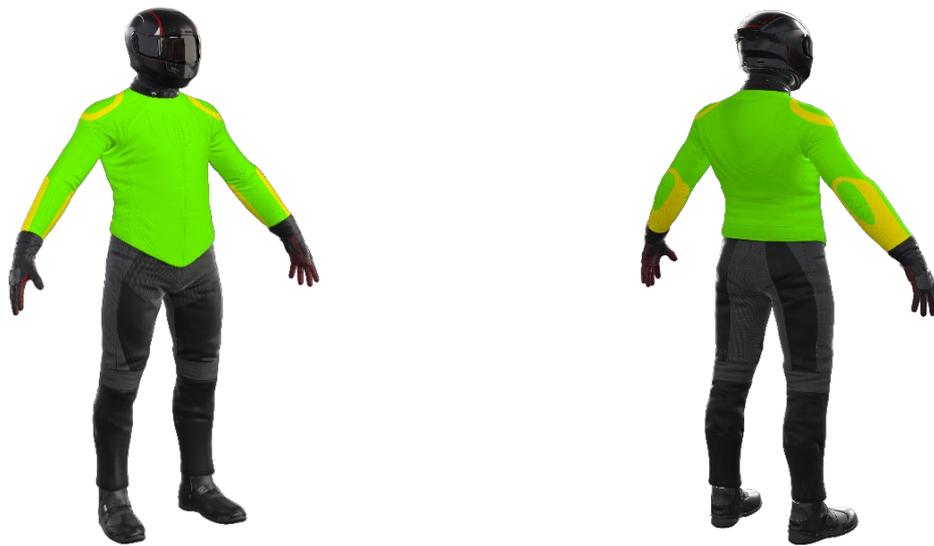
### Burst Strength

The garment's burst strength was tested following the MotoCAP test protocols. The table below shows the burst pressure in kilopascals (kPa) for each sample tested by Zone and the average result for each Zone.

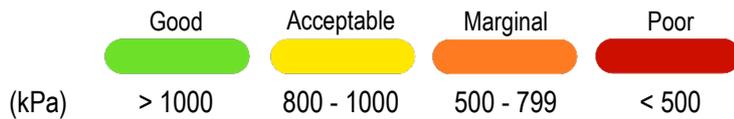
Burst pressure (kPa)

Area	1	2	3	4	5	Average	
Zones 1 & 2	1347	1946	883	1942	1661	1555	G
Zone EZ	1374	874	200	1120	870	888	A
Zones 3 & 4	1928	1967	1597	1459	1876	1766	G

The diagram below illustrates the burst strength results in terms of the likely performance of the garment in an impact and is a pictorial representation of the data from the table above.



**Determining Criteria**  
Burst strength



### Impact Protection

The garment was tested for impact protection and coverage following the MotoCAP test protocols. The table below shows the test results for each strike on each impact protector in kilonewton (kN) and their area of coverage as a proportion (%) of the Zone.

Impact protector type	Elbow		Shoulder	
Average force	18.0	A	20.6	A
Maximum force	23.1	A	26.0	M
Coverage of zone 1 area	120%		120%	
Coverage of zone after displacement	120%		120%	

### Individual test results

Impact force (kN)	Elbow			Shoulder		
	A	B	C	A	B	C
Impact Protector 1	13.0	13.5	23.1	16.5	20.7	25.9
Impact Protector 2	12.6	19.9	23.0	16.9	17.8	26.0
Impact Protector 3	13.8	21.2	21.7	15.0	20.4	26.0

The diagram below is a visual indication of the likely impact performance of each impact protector calculated from the data in the table above.



Determining Criteria	Impact Performance			
	Good	Acceptable	Marginal	Poor*
Burst strength (kN)	< 15	15 - 24	25 - 30	> 30

\* Poor may also indicate that no impact protector, or impact protector pocket is present in the garment

### Thermal comfort

The garment was tested for thermal comfort following the MotoCAP test protocols. The table below shows the moisture vapour resistance and the thermal resistance values obtained.

	1	2	Average
Moisture Vapour Resistance - $R_{et}$ (kPam <sup>2</sup> /W)	60.2	62.8	61.5
	1	2	Average
Thermal Resistance - $R_{ct}$ (Km <sup>2</sup> /W)	0.276	0.284	0.280

### Water spray and rain resistance

This garment has not been advertised as water resistant so has not been tested for water spray and rain resistance.

#### Assessment Details.

Brand	Alpinestars
Model	Atem V3
Type	Jacket - Leather
Date purchased	18 July 2018
Tested by	AMCAF, Deakin University
Garment test reference	J18L05
Rating first published	October 2018
Rating updated	1 October 2021