


This MotoCAP safety rating applies to:

Brand: Triumph
Model: Andorra Quilted
Type: Jacket - Leather
Date purchased: 4 July 2018
Sizes tested: L
Gender: M & F
Style: Cruiser
Test code: J18L02

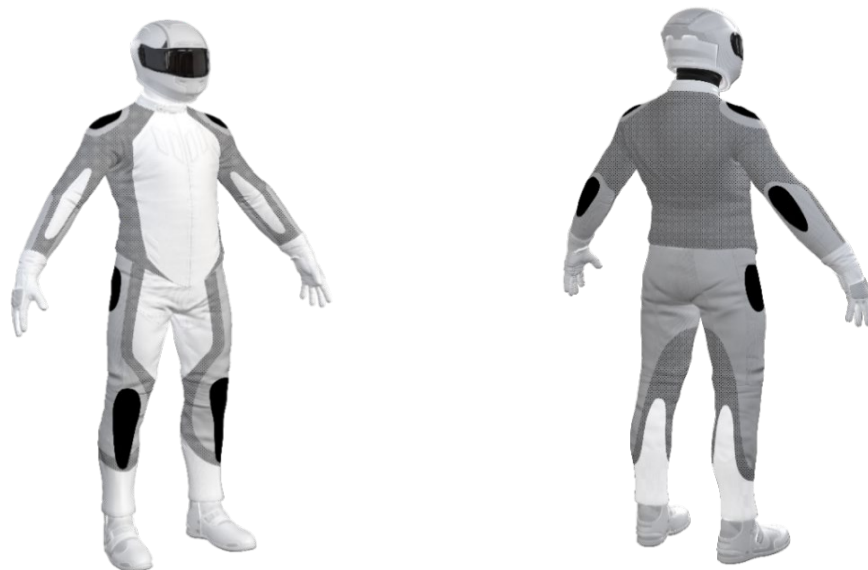
Test Results Summary:

	Rating	Result
MotoCAP Protection Rating	★★★	45.5
Abrasion	4/10	3.14
Burst	10/10	1346
Impact	7/10	54.4
MotoCAP Comfort Rating	★	0.285
Moisture Vapour Resistance		59.5
Thermal Resistance		0.283
Water Resistance	N/A	

This garment is fitted with impact protectors for the elbows, shoulders and back. There is perforated leather on the inside of the upper arm 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 quilted leather outer, quilting padding material & comfort mesh inner liner
Material B:	Single layer of leather outer plus comfort mesh inner liner
Material C:	Single layer of perforated leather outer plus comfort mesh inner liner

Zone	Coverage (%)	Abrasion time for each test (s)						Average (s)	
		1	2	3	4	5	6		
Zone 1 and 2 areas (High abrasion risk)									
Material A	70%	5.48	3.54	5.23	4.13	4.15	4.39	4.49	A
Material B	30%	3.13	3.09	2.50	2.35	2.12	2.15	2.56	M
Zone 3 area (Medium abrasion risk)									
Material B	85%	3.13	3.09	2.50	2.35	2.12	2.15	2.56	G
Material C	15%	3.24	2.15	2.11	1.43	1.67		2.12	A
Zone 4 area (Low abrasion risk)									
Material A	15%	5.48	3.54	5.23	4.13	4.15	4.39	4.49	G
Material B	85%	3.13	3.09	2.50	2.35	2.12	2.15	2.56	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)

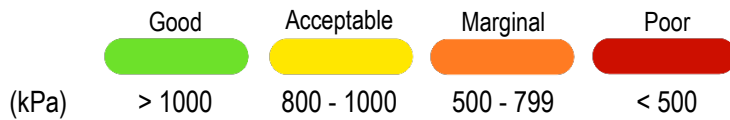
Area	1	2	3	4	5	Average	
Zones 1 & 2	1937	1069	1597	1436	1465	1501	G
Zone EZ	1586	1488	711	1218	1497	1300	G
Zones 3 & 4	1124	860	1467	1344	848	1129	G

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 in percentage (%) within the Zone.

Impact protector type	Elbow		Shoulder	
Average force (kN)	16.7	A	16.9	A
Maximum force (kN)	19.7	A	18.4	A
Coverage of zone 1 area	110%		120%	
Coverage of zone after displacement	90%		100%	

Individual test results

Impact force (kN)	Elbow			Shoulder		
	A	B	C	A	B	C
Impact Protector 1	16.1	16.0	16.2	16.6	17.8	16.9
Impact Protector 2	16.4	16.9	19.7	16.8	14.4	16.2
Impact Protector 3	16.6	16.1	16.7	18.0	16.6	18.4

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	Good	Acceptable	Marginal	Poor*
	(kN)	(kN)	(kN)	(kN)
Burst strength	< 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 ² /W)	57.7	61.2	59.5
	1	2	Average
Thermal Resistance - R_{ct} (Km ² /W)	0.282	0.283	0.283

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	Triumph
Model	Andorra Quilted
Type	Jacket - Leather
Date purchased	4 July 2018
Tested by	AMCAF, Deakin University
Garment test reference	J18L02
Rating first published	October 2018
Rating updated	1 October 2021