This MotoCAP safety rating applies to:

Brand:	Triumph
Model:	Exploration
Type:	Jacket - Textile
Date purchased:	11 February 2019
Sizes tested:	XL
Gender:	M
Style:	Tourer
Test code:	J19T12

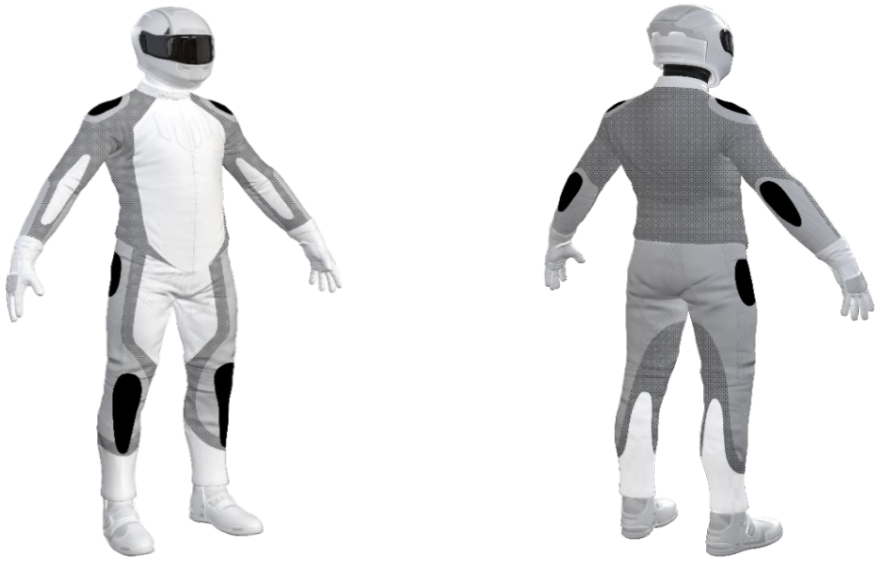
Test Results Summary:

	Rating	Score
MotoCAP Protection Rating	★★	28.4
Abrasion	1/10	0.26
Burst	10/10	1114
Impact	7/10	53.0
MotoCAP Comfort Rating	★	0.166
Moisture Vapour Resistance		98.1
Thermal Resistance		0.271
Water resistance	4/10	13.8

This garment is fitted with impact protectors for the elbows, shoulders and back. There are vents in the chest, arms and sides of the back to allow airflow cooling in hot weather. The thermal comfort rating is based on tests of the breathability of the garment when all vents are closed and the optional water-resistant liner removed. The thermal comfort of this product may be better when the vents can be opened. This garment was also tested with the water-resistant liner installed, which reduced the comfort rating to half a star.

Jacket and Pants - Crash Impact Risk Zones

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



Zone 1	Zone 2	Zone 3	Zone 4
High risk of abrasion High risk of impact	High risk of abrasion	Medium risk of abrasion	Low risk of abrasion

Abrasion Resistance

The garment was tested for abrasion resistance in accordance with 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:	Woven fabric shell and mesh inner liner
Material B:	Particle coated woven fabric shell and mesh inner liner

Zone	Coverage (%)	Abrasion time for each test (seconds) 1	2	3	4	5	6	Average (seconds)	
Zone 1 and 2 areas (High abrasion risk)									
Material A	90%	0.46	0.29	0.18	0.27	0.14	0.25	0.26	P
Material B	10%	Shell fabric was too small for test sample collection							
Zone 3 area (Medium abrasion risk)									
Material A	100%	0.46	0.29	0.18	0.27	0.14	0.25	0.26	P
Zone 4 area (Low abrasion risk)									
Material A	100%	0.46	0.29	0.18	0.27	0.14	0.25	0.26	P

Abrasion times are capped at a maximum of 10.00s.

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. The colour coding is based on the worst performing material in each zone.

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 in accordance with 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	1557	1621	1354	1366	1284	1436	G
Zone EZ	1006	446	890	1262	857	892	A
Zones 3 & 4	1065	1032	563	901	1003	913	A

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		Good	Acceptable	Marginal	Poor
Burst strength	(kPa)	> 1000	800 - 1000	500 - 799	< 500

Impact Protection

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

Impact protector type	Elbow		Shoulder	
Average force (kN)	17.9	A	18.2	A
Maximum force (kN)	19.2	A	19.1	A
Coverage of zone 1 area	130%		110%	
Coverage of zone after displacement	100%		70%	

Individual test results

Impact force (kN)	Elbow			Shoulder		
Strike location	**A**	**B**	**C**	**A**	**B**	**C**
Impact Protector 1	18.1	17.9	18.7	19.1	18.8	18.1
Impact Protector 2	17.0	16.6	19.2	18.6	17.9	18.9
Impact Protector 3	17.8	17.6	18.0	17.6	17.2	18.1

The diagram below is a visual indication of the likely performance of each impact protector calculated from the data in the table above. The colour coding is based on the worst performing score for average or maximium force for each impact zone.

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

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

Areas shaded black are not considered in the impact protection ratings.

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} ($kPam^2/W$)	98.7	97.5	98.1

	1	2	**Average**
Thermal Resistance - R_{ct} (Km^2/W)	0.281	0.262	0.271

Water spray and rain resistance

This garment is advertised as water-resistant, and so has been tested for water spray and rain resistance according to the MotoCAP test protocols. The table below shows the water absorbed (ml) and the wetting proportion (%) of the garment and undergarments due to water absorption.

	Water absorbed by garment		Water absorbed by underwear	
	Volume (ml)	Percentage (%)	Volume (ml)	Percentage (%)
Garment 1	493	22%	58	21%
Garment 2	526	24%	18	7%
Average	340	23%	38	14%

Location of wetting:

Minor visible wetting to the cotton underwear worn under the motorcycle water resistant garment was present at the cuffs of the sleeves and upper arms on one jacket and present on the chest only of the other jacket.

Assessment Details.

Brand	Triumph
Model	Exploration
Type	Jacket - Textile
Date purchased	11 February 2019
Tested by	AMCAF, Deakin University
Garment test reference	J19T12
Rating first published	July 2019
Rating updated	1 October 2021