This MotoCAP safety rating applies to:

Brand:	Merlin
Model:	Everson
Type:	Jacket - Textile
Date purchased:	11 August 2018
Sizes tested:	44
Gender:	M & F
Style:	All Purpose
Test code:	J18T05

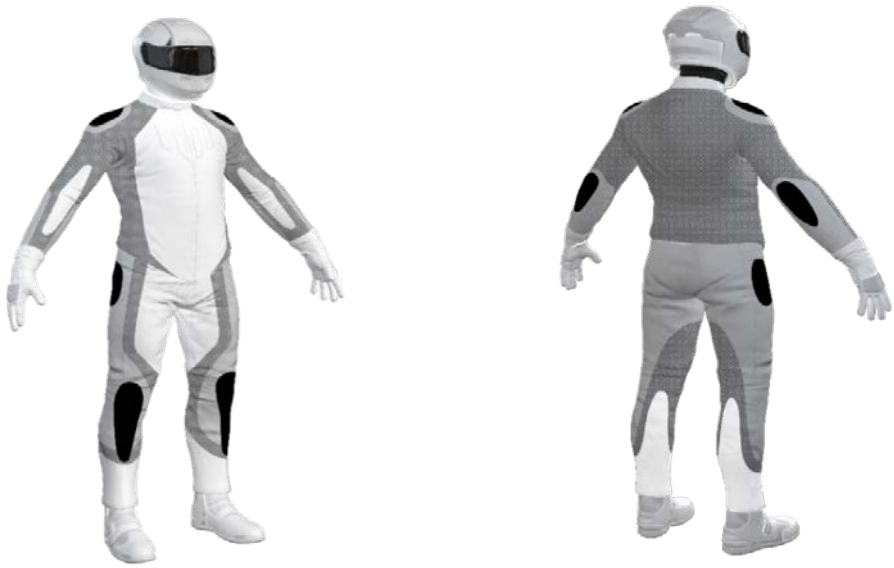
Test Results Summary:

	Rating	Score
MotoCAP Protection Rating	★★	36.2
Abrasion	4/10	3.09
Burst	10/10	1289
Impact	4/10	26.4
MotoCAP Comfort Rating	★	0.105
Moisture Vapour Resistance		148.1
Thermal Resistance		0.260
Water resistance	★	42

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 horizontal ventilation ports located on either the upper chest to allow control of airflow through the jacket to aid cooling in hot weather. Comfort measurements were conducted with the vents closed. The thermal comfort of this product would be better in dry conditions with the vents open.

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 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:	Waxed cotton shell with water resist layer, Kevlar layer and cushion impact pocket liner
Material B:	Waxed cotton shell with water resistant layer, Kevlar layer and mesh 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	95%	5.64	4.58	2.41	3.44	5.75	3.38	4.20	A
Material B	5%	1.63	2.17	1.43	1.63	2.12	1.80	1.79	M
Zone 3 area (Medium abrasion risk)									
Material B	100%	1.63	2.17	1.43	1.63	2.12	1.80	1.79	A
Zone 4 area (Low abrasion risk)									
Material B	100%	1.63	2.17	1.43	1.63	2.12	1.80	1.79	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. 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 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	1941	1874	1224	1357	1175	1514	G
Zone EZ	1585	1855	1036	566	1233	1255	G
Zones 3 & 4	927	1023	716	610	1252	906	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 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 (kN)	25.8	M	27.0	M
Maximum force (kN)	30.8	P	29.5	M
Coverage of zone 1 area	80%		120%	
Coverage of zone after displacement	60%		120%	

Individual test results

Impact force (kN)	Elbow			Shoulder		
Strike location	A	B	C	A	B	C
Impact Protector 1	20.7	27.2	27.2	28.7	28.7	25.0
Impact Protector 2	24.3	27.4	29.0	26.1	26.9	28.9
Impact Protector 3	20.5	25.4	30.8	21.5	27.4	29.5

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

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} ($kPam^2/W$)	148.9	147.4	148.1

	1	2	Average
Thermal Resistance - R_{ct} (Km^2/W)	0.252	0.268	0.260

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 proportion (%) increased weight (g) of the garment and undergarments due to water absorption.

	Water absorbed by garment		Water absorbed by underwear	
	Mass (g)	Percentage (%)	Mass (g)	Percentage (%)
Test 1	956.5	50%	132.7	48%
Test 2	1195.1	63%	97.4	35%
Average	1075.8	56%	115.0	42%

Location of wetting:

Visible wetting to the cotton undergarment worn under the motorcycle water resistant jacket was present on the neck, chest and cuffs of the sleeves.