


**This MotoCAP safety rating applies to:**

<b>Brand:</b>	NEO
<b>Model:</b>	Sahara 4 Season
<b>Type:</b>	Jacket - Textile
<b>Date purchased:</b>	29 November 2018
<b>Sizes tested:</b>	XL
<b>Gender:</b>	M
<b>Style:</b>	Sports
<b>Test code:</b>	J18T24

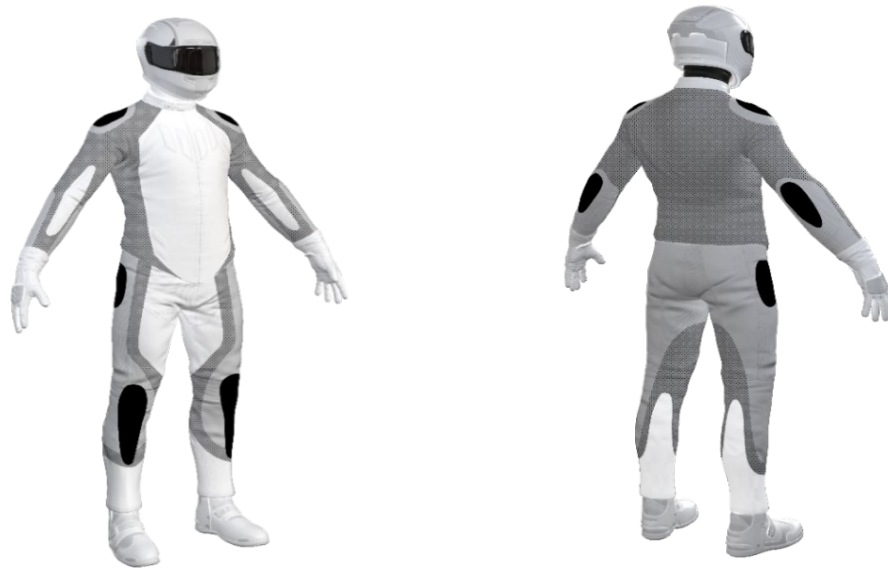
**Test Results Summary:**

	Rating	Score
MotoCAP Protection Rating	★★	31.1
Abrasion	2/10	1.62
Burst	10/10	1634
Impact	3/10	22.3
MotoCAP Comfort Rating	★★★	0.454
Moisture Vapour Resistance		28.7
Thermal Resistance		0.217
Water resistance	1/10	43.1

This garment is fitted with impact protectors for the elbows and shoulders, pockets are provided at the back for aftermarket impact protectors. Mesh panels are located in the chest, inner arms and sides of back area to allow airflow cooling in hot weather. Comfort measurements were conducted with and without the removable water resistant liner. The comfort rating reduced from 3 stars to half a star when the water resistant liner was present.

**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 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:	Coarse weave nylon fabric shell and mesh inner liner
Material B:	Woven polyester fabric shell and mesh inner liner
Material C:	Mesh polyester fabric shell and mesh inner liner

Zone	Coverage (%)	Abrasion time for each test (seconds)						Average (seconds)	
		1	2	3	4	5	6		
<b>Zone 1 and 2 areas (High abrasion risk)</b>									
Material A	100%	2.32	2.04	2.28	2.45	2.92	2.04	2.34	M
<b>Zone 3 area (Medium abrasion risk)</b>									
Material B	30%	0.46	0.52	0.00	0.00	0.00	0.00	0.49	P
Material C	70%	0.56	0.65	0.53	0.50	0.64	0.62	0.58	P
<b>Zone 4 area (Low abrasion risk)</b>									
Material B	50%	0.46	0.52	0.00	0.00	0.00	0.00	0.49	M
Material C	50%	0.56	0.65	0.53	0.50	0.64	0.62	0.58	M

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	1935	1935	1937	1935	1743	1897	G
Zone EZ	1644	1715	587	1953	1090	1398	G
Zones 3 & 4	1600	1451	1453	1871	1535	1582	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.



### Impact Protection

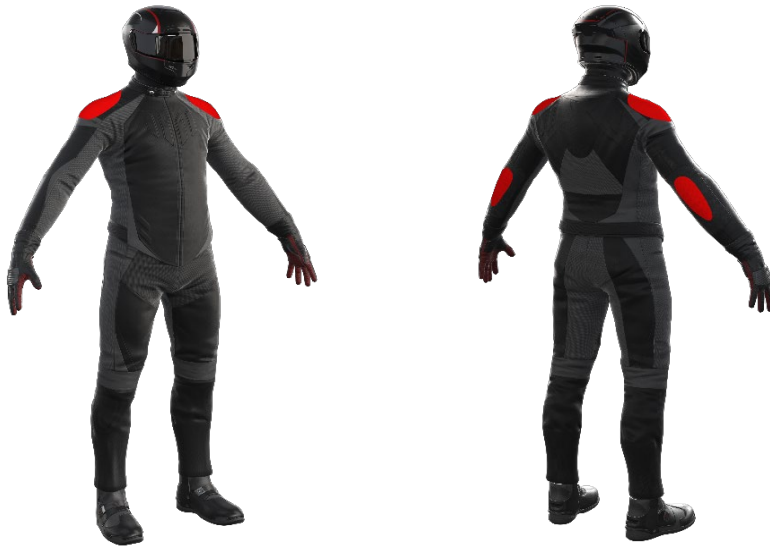
The garment was tested for impact protection and coverage in accordance with MotoCAP test protocols. The table below shows the test results for each strike on each impact protector in kilonewton (kN) and their area of coverage as a proportion (%) of the Zone.

Impact protector type	Elbow		Shoulder	
Average force (kN)	27.1	M	30.2	P
Maximum force (kN)	31.5	P	31.3	P
Coverage of zone 1 area	100%		105%	
Coverage of zone after displacement	50%		100%	

### Individual test results

Impact force (kN)	Elbow			Shoulder		
	A	B	C	A	B	C
Impact Protector 1	22.5	26.7	29.4	29.9	30.6	31.3
Impact Protector 2	25.5	27.6	31.5	30.3	30.4	30.5
Impact Protector 3	22.4	27.3	31.0	28.2	31.0	30.0

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 maximum force for each impact zone.



Determining Criteria	Good      Acceptable      Marginal      Poor*			
	(kN)	< 15	15 - 24	25 - 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 <sup>2</sup> /W)	26.0	31.4	28.7
	1	2	Average
Thermal Resistance - $R_{ct}$ (Km <sup>2</sup> /W)	0.222	0.212	0.217

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

	Water absorbed by garment		Water absorbed by underwear	
	Volume (ml)	Percentage (%)	Volume (ml)	Percentage (%)
Jacket 1	603	28%	143	51%
Jacket 2	603	28%	98	35%
<b>Average</b>	603	28%	120	43%

### Location of wetting:

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