


This MotoCAP safety rating applies to:

Brand: Ixon
Model: Exhale HP
Type: Jacket - Textile
Date purchased: 20 January 2020
Sizes tested: M and XL
Gender: M
Style: All Purpose
Test code: J19T37

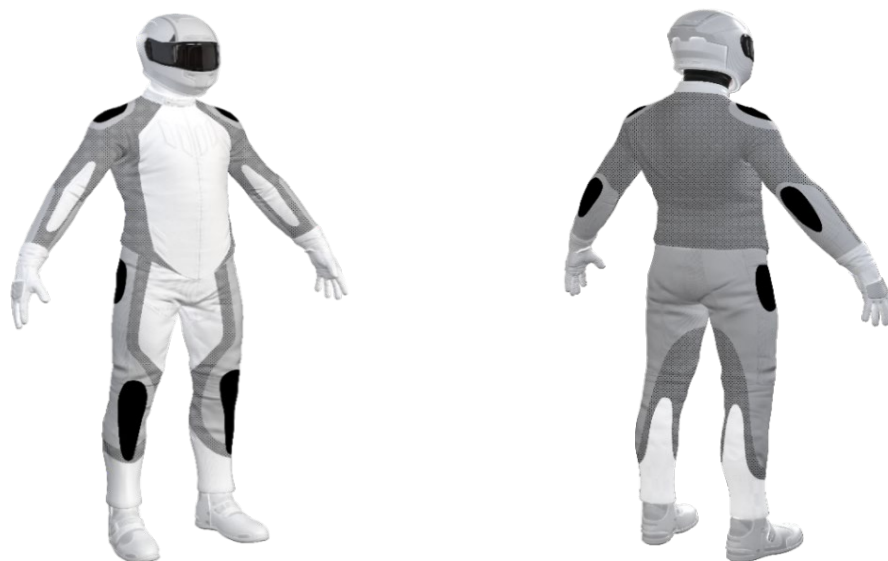
Test Results Summary:

	Rating	Score
MotoCAP Protection Rating	★	22.8
Abrasion	1/10	0.54
Burst	10/10	1396
Impact	3/10	20.5
MotoCAP Comfort Rating	↘	0.059
Moisture Vapour Resistance		309.8
Thermal Resistance		0.303
Water resistance	1/10	55

This garment is fitted with impact protectors for the elbows and shoulders. A pocket is provided for an aftermarket back protector. There are vents in the chest and mesh panels in the shoulders to allow airflow movement through the garment. The thermal comfort rating is based on tests of the breathability of the garment when all vents are closed. The thermal comfort of this product may be better when the vents can be opened.

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: Woven fabric shell with water resistant coated inner liner

Zone	Coverage (%)	Abrasion time for each test (seconds)						Average (seconds)	
		1	2	3	4	5	6		
Zone 1 and 2 areas (High abrasion risk)									
Material A	100%	0.66	0.40	0.65	0.62	0.41	0.52	0.54	P
Zone 3 area (Medium abrasion risk)									
Material A	100%	0.66	0.40	0.65	0.62	0.41	0.52	0.54	P
Zone 4 area (Low abrasion risk)									
Material A	100%	0.66	0.40	0.65	0.62	0.41	0.52	0.54	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)

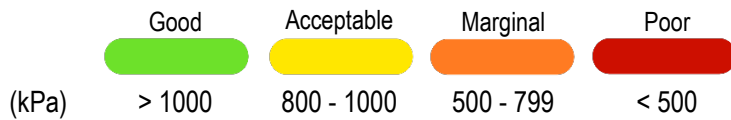
Area	1	2	3	4	5	Average	
Zones 1 & 2	1870	1941	1941	1688	992	1686	G
Zone EZ	1172	1109	940	1239	1806	1253	G
Zones 3 & 4	820	1264	1067	853	1513	1103	G

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 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)	27.9	M	27.9	M
Maximum force (kN)	31.6	P	31.6	P
Coverage of zone 1 area	85%		110%	
Coverage of zone after displacement	60%		70%	

Individual test results

Impact force (kN)	Elbow			Shoulder		
	A	B	C	A	B	C
Impact Protector 1	26.6	28.6	31.6	26.6	28.6	31.6
Impact Protector 2	26.8	27.6	27.7	26.8	27.6	27.7
Impact Protector 3	24.9	28.4	29.1	24.9	28.4	29.1

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 maximum force for each impact zone.



Determining Criteria

Impact force	(kN)	< 15	15 - 24	25 - 30	> 30
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* 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)	332.4	287.3	309.8
	1	2	Average
Thermal Resistance - R_{ct} (Km ² /W)	0.302	0.303	0.303

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 (%)
Jacket 1	289	23%	192	69%
Jacket 2	359	29%	111	41%
Average	324	26%	151	55%

Location of wetting:

Visible wetting to the cotton underwear was present over the chest on both garments tested.