

MOTOCAP

This MotoCAP safety rating applies to:

Brand:	MotoDry
Model:	Airmax
Туре:	Jacket - Textile
Date purchased:	31 October 2018
Sizes tested:	L
Gender:	Μ
Style:	Sports
Test code:	J18T11

Test Results Summary:

	Rating	Score
MotoCAP Protection Rating	***	44.3
Abrasion	5/10	3.72
Burst	10/10	1529
Impact	5/10	34.6
MotoCAP Comfort Rating	***	0.424
Moisture Vapour Resistance		30.4
Thermal Resistance		0.215
Water resistance	9/10	2.1

This garment is fitted with impact protectors for the elbows and shoulders, with a pocket provided for an aftermarket back protector. Mesh panels are located in the inner arms, chest and central back areas 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.





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:	Heavy weight polyester fabric shell, fibre cushion layer and mesh inner liner
Material B:	Polyester mesh fabric shell and mesh inner liner
Material C:	Woven polyester fabric shell and mesh inner liner

Zone	Coverage	Abrasion time for each test (seconds)					Average	
	(%)	1	2	3	4	5	6	(seconds)
Zone 1 and 2	areas (High abra	asion risk)						
Material A	90%	5.25	9.56	10.00	7.35			8.04 G
Material B	10%	0.45	0.33	0.36	0.48	0.35	0.39	0.40 P
Zone 3 area (l	Medium abrasio	n risk)						
Material C	30%	0.65	0.57		0.57	0.45	0.51	0.55 P
Material B	70%	0.45	0.33	0.36	0.48	0.35	0.39	0.40 P
Zone 4 area (l	Low abrasion ris	sk)						
Material C	40%	0.65	0.57		0.57	0.45	0.51	0.55 M
Material B	60%	0.45	0.33	0.36	0.48	0.35	0.39	0.40 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.





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	1954	1944	1920	1523	1908	1850	G
Zone EZ	1485	1380	818	954	1549	1237	G
Zones 3 & 4	1389	1595	1407	1444	1518	1471	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)		24.6	A		25.0	M
Maximum force (kN)		27.1	M		26.6	Μ
Coverage of zone 1 area		110%			110%	
Coverage of zone after di	splacement	80%			100%	
Individual test results						
Impact force (kN)	Elbow			Shoulder		
Strike location	Α	В	С	Α	В	С
Impact Protector 1	20.1	22.1	21.0	26.1	22.2	24.7
Impact Protector 2	26.0	25.8	26.1	26.4	26.5	20.6
Impact Protector 3	27.1	26.3	26.8	25.6	25.9	26.6

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.



* 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}	28.4	32.4	30.4
(kPam²/W)			
	1	2	Average
Thermal Resistance - R _{ct}	0.210	0.220	0.215
(Km^2/M)			

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 absorbe	ed by garment	Water absorbed by underwear		
	Volume (ml)	Percentage (%)	Volume (ml)	Percentage (%)	
Jacket 1	661	32%	8	0.4%	
Jacket 2	857	42%	80	3.9%	
Average	759	37%	44	2.1%	

Location of wetting:

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

Assessment Details.	
Brand	MotoDry
Model	Airmax
Туре	Jacket - Textile
Date purchased	31 October 2018
Tested by	AMCAF, Deakin University
Garment test reference	J18T11
Rating first published	April 2019
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