This MotoCAP safety rating applies to:

Brand:	BMW
Model:	AirFlow
Type:	Jacket - Textile
Date purchased:	11 August 2018
Sizes tested:	56
Gender:	M & F
Style:	Tourer
Test code:	J18T01

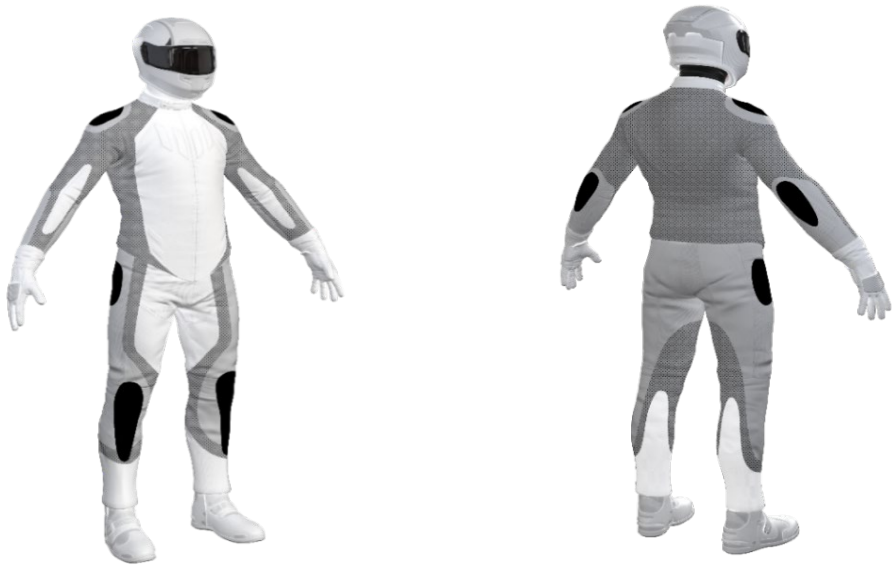
Test Results Summary:

	Rating	Score
MotoCAP Protection Rating	★★	29.1
Abrasion	1/10	0.65
Burst	10/10	1286
Impact	6/10	43.3
MotoCAP Comfort Rating	★★	0.360
Moisture Vapour Resistance		48.8
Thermal Resistance		0.293
Water resistance	N/A	N/A

This garment is fitted with impact protectors for the elbows, shoulders and back. There is mesh fabric in the chest, upper and lower arms and back area to allow airflow through the jacket to aid cooling in hot weather.

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:	Dynatec fabric shell with mesh liner
Material B:	Dynatec fabric stretch shell with mesh liner
Material C:	Dynatec fabric shell with mesh liner and soft foam layer
Material D:	Airtex mesh shell with 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	10%	1.06	0.78	1.01	1.08	0.98	1.26	1.03	P
Material B	90%	0.34	0.32	0.32	0.25	0.35	0.32	0.32	P
Zone 3 area (Medium abrasion risk)									
Material C	85%	3.49	6.74	5.32	3.98	3.82	5.35	4.78	G
Material A	15%	1.06	0.78	1.01	1.08	0.98	1.26	1.03	M
Zone 4 area (Low abrasion risk)									
Material D	10%	1.92	2.01	1.42	1.83	2.56	1.33	1.84	G
Material B	90%	0.34	0.32	0.32	0.25	0.35	0.32	0.32	P

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	1475	1058	1575	1392	991	1298	G
Zone EZ	1331	1700	1052	1078	1010	1234	G
Zones 3 & 4	1268	1276	1374	1722	1180	1364	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		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)	9.5	G	16.0	A
Maximum force (kN)	19.4	A	27.6	M
Coverage of zone 1 area	140%		70%	
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	5.7	19.4	13.6	11.5	15.2	17.4
Impact Protector 2	8.1	6.0	5.8	12.4	11.6	19.0
Impact Protector 3	6.3	10.0	11.0	13.7	15.9	27.6

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} ($kPam^2/W$)	50.6	47.0	48.8

	1	2	**Average**
Thermal Resistance - R_{ct} (Km^2/W)	0.283	0.303	0.293

Water spray and rain resistance

This garment has not been advertised as water resistant so has not been tested for water spray and rain resistance.

Assessment Details.

Brand	BMW
Model	AirFlow
Type	Jacket - Textile
Date purchased	11 August 2018
Tested by	AMCAF, Deakin University
Garment test reference	J18T01
Rating first published	November 2018
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