This MotoCAP safety rating applies to:

Brand:	Harley Davidson
Model:	Bentan Men's Riding Jacket
Type:	Jacket - Textile
Date purchased:	11 August 2018
Sizes tested:	XL
Gender:	M
Style:	Cruiser
Test code:	J18T07

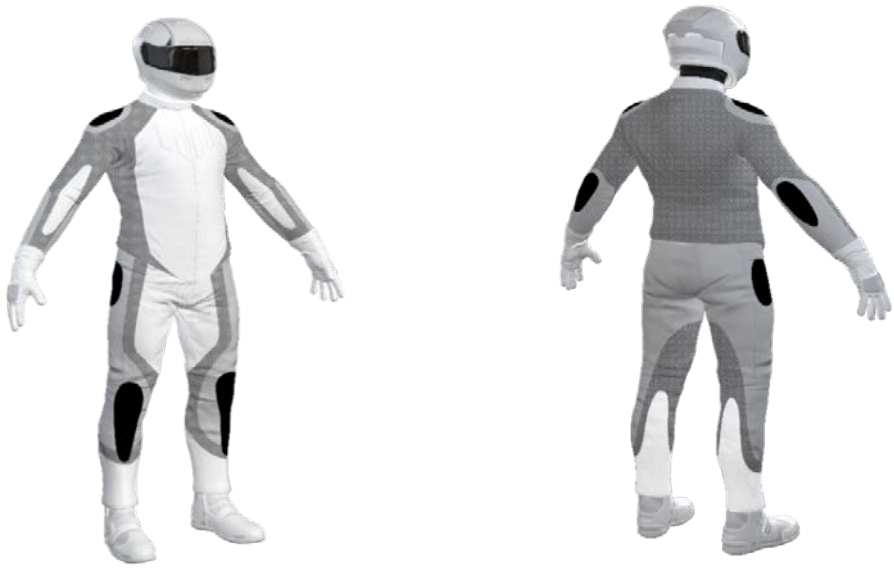
Test Results Summary:

	Rating	Score
MotoCAP Protection Rating	★	16.1
Abrasion	2/10	1.31
Burst	9/10	955
Impact	1/10	0.0
MotoCAP Comfort Rating	★	0.156
Vapour permeability		109.2
Thermal Resistance		0.283
Water resistance	N/A	N/A

This garment is not fitted impact protectors but pockets are provided for aftermarket elbow and shoulder impact protector. There are 300mm long vertical ventilation ports located on each side of the underarm side seam to allow 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 nylon shell with light foam layer and fabric liner
Material B:	Waxed nylon shell with light foam layer and mesh liner
Material C:	Waxed nylon shell with fabric 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	80%	2.17	1.42	2.36	2.37	2.66	2.44	2.24	M
Material B	20%	0.21	0.31	0.64	0.46	0.53	0.58	0.45	P
Zone 3 area (Medium abrasion risk)									
Material A	80%	2.17	1.42	2.36	2.37	2.66	2.44	2.24	A
Material C	20%	0.41	0.38	0.36	0.38	0.48	0.28	0.38	P
Zone 4 area (Low abrasion risk)									
Material B	90%	0.21	0.31	0.64	0.46	0.53	0.58	0.45	M
Material A	10%	2.17	1.42	2.36	2.37	2.66	2.44	2.24	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	958	1442	1120	868	1161	1110	G
Zone EZ	860	1004	643	910	763	836	A
Zones 3 & 4	867	1254	852	764	687	885	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

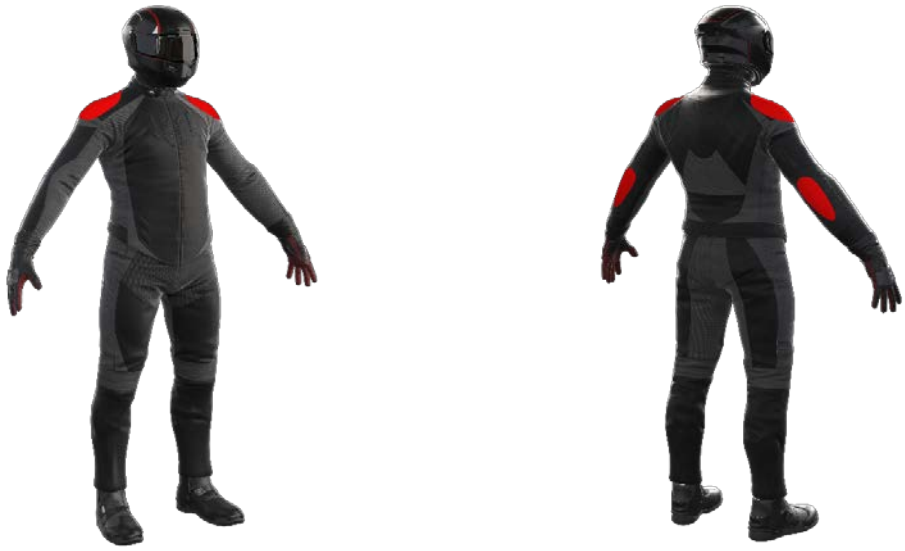
This garment was not tested for impact protection as impact protectors were not provided with the garment. The table below shows the test results for each strike on each impact protector in kilonewton (kN) and their area of coverage as a proportion (%) of the Zone.

Impact protector type	Elbow		Shoulder	
Average force (kN)	50.0	P	50.0	P
Maximum force (kN)	50.0	P	50.0	P
Coverage of zone 1 area	0%		0%	
Coverage of zone after displacement	0%		0%	

Individual test results

Impact force (kN)	Elbow			Shoulder		
Strike location	A	B	C	A	B	C
Impact Protector 1	50.0	50.0	50.0	50.0	50.0	50.0
Impact Protector 2						
Impact Protector 3						

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

Comments

An impact force of 50.0kN was used in all impact force calculations for this garment as impact protectors were not present. The garment achieved a 1/10 rating for impact protection as pockets were present to allow the use of aftermarket elbow and shoulder impact protectors

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} ($kPam^2/W$)	106.1	112.3	109.2

	1	2	Average
Thermal Resistance - R_{ct} (Km^2/W)	0.276	0.291	0.283

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.