This MotoCAP safety rating applies to:

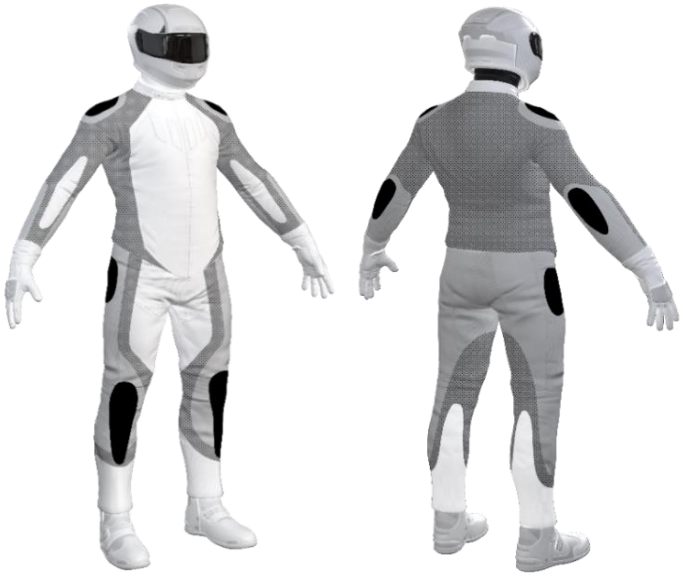
Brand	Dare Rider
Model	Ultimate EMBCP Silver
Type	Pants - Textile
Date purchased	23 October 2023
Sizes tested	XL
Test garment gender	Male
Style	Tourer
RRP	$249.00

Test Results Summary	Rating	Score
MotoCAP Protection Rating	★	22.7
Abrasion	1/10	0.36
Burst	10/10	1416
Impact	3/10	22.5
MotoCAP Breathability Rating	★★★	0.432
Moisture Vapour Resistance	-	27.5
Thermal Resistance	-	0.198
Water resistance	1/10	101.9

This garment is fitted with impact protectors for the knees and hips. Replacing the knee and hip armour with higher performing impact protectors would improve the protection levels of this garment. Mesh panels are located on the front of the upper leg to allow airflow movement through the garment. This garment has a removable water-resistant liner. The breathability rating above was achieved with the thermal and water-resistant liners removed. When tested with the water-resistant liner installed, the breathability rating reduced to half a star.

Jacket and Pants - Crash Impact Risk Zones

This diagram is a pictorial representation of the crash impact risk Zones.



Removable liners

Thermal liner	✓
Water-resistant liner	✓

Removable impact protection

	Pockets	Armour
Knee	✓	✓
Hip	✓	✓

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

These pants were tested for abrasion resistance in accordance with MotoCAP test protocols. 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 below. The colour coding is based on the worst performing material in each zone.

Abrasion Resistance Performance	
Abrasion rating	1/10
Abrasion score	0.36

Determining Criteria	Area	Good	Acceptable	Marginal	Poor
High abrasion risk	Zones 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

Individual Abrasion Resistance Results: - 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. Abrasion times are capped at a maximum of 10.00s.

Abrasion time for each test (seconds)

Zones 1 & 2	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average	
Material A	60%	1.45	2.00	1.46	1.40			1.58	M
Material B	40%	0.33	0.31	0.63	0.56	0.39	0.29	0.42	P
Zone 3	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	**Average**	
Material B	75%	0.33	0.31	0.63	0.56	0.39	0.29	0.42	P
Material C	25%	1.20	0.30	0.45	0.41			0.59	P
Zone 4	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	**Average**	
Material B	60%	0.33	0.31	0.63	0.56	0.39	0.29	0.42	M
Material C	40%	1.20	0.30	0.45	0.41			0.59	M

Details of materials used in pant

Material A	Laminated fabric patch over woven fabric shell with mesh inner liner
Material B	Woven fabric shell with mesh inner liner
Material C	Mesh fabric shell with mesh inner liner

Burst Strength

These pants were tested for burst strength in accordance with MotoCAP test protocols. 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 below.

Burst Strength Performance	
Burst rating	10/10
Burst score	1416

Determining Criteria	Unit	Good	Acceptable	Marginal	Poor
Burst strength	(kPa)	> 1000	800 - 1000	500 - 799	< 500

Individual Burst Strength Results: - 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 for each seam (kPA)

Area	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average	
Zones 1 & 2	1648	1683	849	1263	1994	1684	1520	G
Zones 3 & 4	1057	1035	777	1059	781	1273	997	A

Impact Protection

These pants were tested for impact protection and coverage in accordance with MotoCAP test protocols. The diagram below is a visual indication of the likely performance of each impact protector calculated from the data in the table below. The colour coding is based on the worst performing score for average or maximum force for each impact zone. Areas shaded black are not considered for impact protection ratings.

Impact Protection Performance	
Impact rating	3/10
Impact score	22.5

Determining Criteria	Unit	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

Impact Protector Results: - The table below shows the average and maximum force transmitted through each impact protector type in kilonewtons (kN) and their area of coverage as a proportion (%) of the Zone.

Impact protector type	Knee		Hip	
Average force (kN)	26.5	M	33.3	P
Maximum force (kN)	29.2	M	36.6	P
Coverage of Zone 1 area	100%		150%	
Coverage of Zone after displacement	90%		100%	

Individual Impact Protector Results: - The table below shows the test results for each strike on individual impact protectors in kilonewtons (kN) and the position of the strike. Individual strike results are capped at a maximum of 50kN.

Force transfer for each impact strike (kN)

Impact protector type	Knee			Hip		
Strike location	Centre	Mid	Edge	Centre	Mid	Edge
Impact Protector 1	29.2	25.4	22.8	30.2	34.2	32.4
Impact Protector 2	28.4	28.8	25.5	34.7	29.5	36.6
Impact Protector 3	28.2	24.9	25.8	34.0	34.1	34.4

Breathability

These pants were tested for breathability following the MotoCAP test protocols. The table below shows the moisture vapour resistance and the thermal resistance values obtained.

Without removable liners		With water-resistant liner	
Breathability rating	★★★	Breathability rating	★
Breathability score	0.432	Breathability score	0.108

Moisture Vapour Resistance - R_{et} (kPa.m^2/W)	1	2	Average
Without removable liners	27.4	27.5	27.5
With water-resistant liner	81.8	87.9	84.9

Thermal Resistance - R_{ct} (K.m^2/W)	1	2	Average
Without removable liners	0.203	0.193	0.198
With water-resistant liner	0.030	0.276	0.153

Water spray and rain resistance

This pants are 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 (%)
Pants 1	373	26%	63	23%
Pants 2	519	34%	488	180%
Average	446	30%	275	102%

Location of wetting

There was major wetting to the cotton underwear present at the bottom of the pants, the waistband, the crotch and upper legs of one of the pants tested, the other pair showed minor wetting at the bottom of the pants, the waistband and the crotch .

Assessment Details.

Brand	Dare Rider
Model	Ultimate EMBCP Silver
Type	Pants - Textile
Date purchased	23 October 2023
Tested by	AMCAF, Deakin University
Report approved by	MotoCAP Chief Scientist
Garment test reference	P24T08
Rating first published	February 2024
Rating updated	21 October 2024