



## This MotoCAP safety rating applies to:

Brand Ricondi

Model Adventure Lite
Type Jacket - Textile
Date purchased 20 February 2023

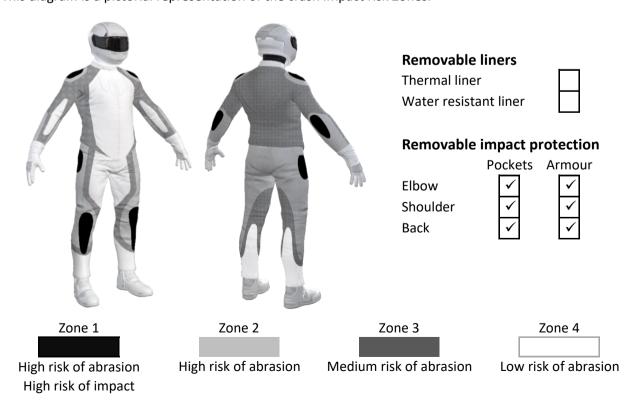
Sizes tested XL and 2XL
Test garment gender Male
Style Tourer
RRP \$295.00

Test Results Summary	Rating	Score
MotoCAP Protection Rating	**	30.4
Abrasion	2/10	1.33
Burst	10/10	1208
Impact	5/10	38.8
MotoCAP Breathability Rating	+	0.056
Moisture Vapour Resistance	-	319.6
Thermal Resistance	-	0.296
Water resistance	1/10	40.0

This garment is fitted with impact protectors for the elbows, shoulders and back. Replacing the elbow and shoulder armour with higher performing impact protectors would improve the protection levels of this garment. There are zipped vents in the chest, arms and back to allow controlled airflow movement through the garment. The breathability rating is based on tests of the garment's materials when all vents are closed. The breathability 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.





#### **Abrasion Resistance**

The jacket was 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	2/10
Abrasion score	1.33

<b>Determining Criteria</b>	Area	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

**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)

Zone 1 & 2	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average
Material A	90%	1.30	2.01	2.80	3.28	2.06	3.16	2.44
Material B	10%	0.50	0.40	0.32	0.41	0.63	0.58	0.47
Zone 3	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average -
Material B	100%	0.50	0.40	0.32	0.41	0.63	0.58	0.47
Zone 4	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average
Material B	100%	0.50	0.40	0.32	0.41	0.63	0.58	0.47

#### Details of materials used in jacket

Material A	Heavy weight woven fabric shell, water-resistant layer and mesh inner liner
Material B	Woven fabric shell, water-resistant layer and mesh inner liner



# **Burst Strength**

The jacket was 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	1208

<b>Determining Criteria</b>	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	1270	1243	1266	1293	1221	1017	1218	G
Zones 3 & 4	1269	973	1257	1206	942	1362	1168	G



## **Impact Protection**

The jacket was 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 5/10 Impact score 38.8

<b>Determining Criteria</b>	Unit	Good	Acceptable	Marginal	Poor*
Impact force	(kN)	< 15	15 - 24	25 - 30	> 30

<sup>\*</sup> Poor may also indicate that no impact protector, or impact protector pocket is present in the garment

**Individual Impact Protector Results:** - 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. Individual strike results are capped at a maximum of 50kN.

Impact protector type	Elbow		Shoulder
Average force (kN)	23.1	A	20.4 A
Maximum force (kN)	28.0	M	25.7 M
Coverage of Zone 1 area	120%	_	100%
Coverage of Zone after displacement	100%		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	Elbow			Shoulder		
Strike location	Centre	Mid	Edge	Centre	Mid	Edge
Impact Protector 1	19.6	22.1	28.0	17.2	21.4	21.0
Impact Protector 2	19.9	21.7	24.7	18.3	18.4	25.7
Impact Protector 3	21.4	24.7	25.4	20.2	17.6	23.4



## **Breathability**

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

Without removable I	iners	Witl	n water-resista	ant liner
Breathability rating Breathability score  0.056		Brea	thability rating	N/A
		Brea	N/A	
Moisture Vapour Resis	stance - R <sub>et</sub> (kPa.m²/W)	1	2	Average
Without removable liner	S	334.8	304.5	319.6
With water-resistant line	er	N/A	N/A	N/A
Thermal Resistance -	$R_{ct}$ (K.m $^2$ /W)	1	2	Average
Without removable liner	S	0.288	0.304	0.296
With water-resistant line	er	N/A	N/A	N/A

# Water spray and rain resistance

This jacket 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	350	23%	109	38%
Jacket 2	428	27%	116	42%
Average	389	25%	113	40%

## **Location of wetting**

There was major wetting to the cotton underwear present at the cuffs of the sleeves and chest for both jackets tested.

## **Assessment Details.**

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Model Adventure Lite

Type Jacket - Textile

Date purchased 20 February 2023

Tested by AMCAE Deakin III

Tested by AMCAF, Deakin University Report approved by MotoCAP Chief Scientist

Garment test reference J23T03
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