This MotoCAP safety rating applies to:

Brand:	RST
Model:	R-18
Type:	Jacket - Leather
Date purchased:	4 July 2018
Sizes tested:	L
Gender:	M
Style:	Sports
Test code:	J18L03

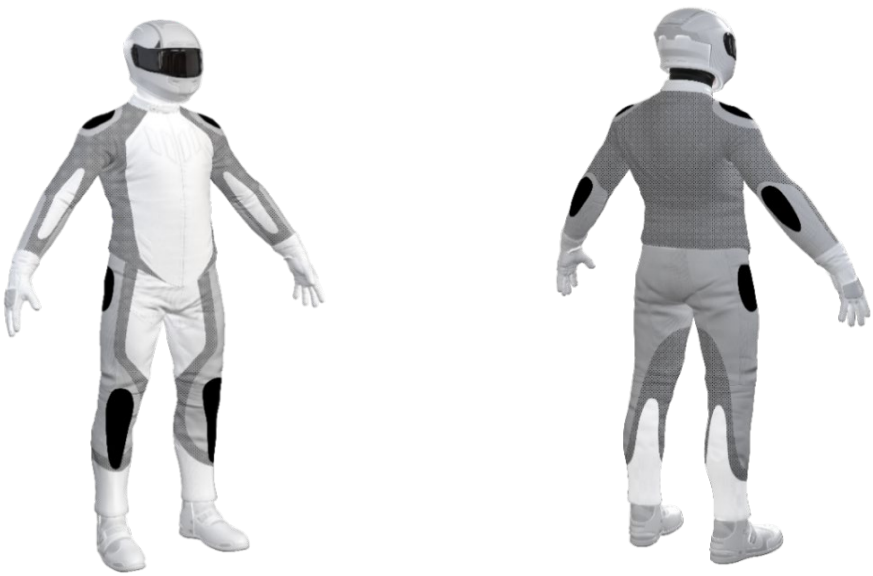
Test Results Summary:

	Rating	Score
MotoCAP Protection Rating	★★★★	61.8
Abrasion	10/10	7.29
Burst	10/10	1418
Impact	5/10	37.4
MotoCAP Comfort Rating	★	0.205
Moisture Vapour Resistance		71.2
Thermal Resistance		0.243
Water Resistance	N/A	N/A

This garment is fitted with impact protectors for the elbows and shoulders, with a pocket provided for the addition of an aftermarket back protector. There are panels of perforated leather on the front of the jacket and ventilation holes in the hard shoulder caps 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:	Single layer of leather outer, foam filler and comfort mesh inner liner
Material B:	Single layer of leather outer plus comfort mesh inner liner
Material C:	Gathered leather stretch panel outer plus comfort mesh inner liner
Material D:	Stretch fabric outer plus comfort mesh inner liner

Zone	Coverage	Abrasion time for each test (s)						Average	
	(%)	1	2	3	4	5	6	(s)	
Zone 1 and 2 areas (High abrasion risk)									
Material A	70%	10.00	10.00	10.00	10.00	10.00	10.00	10.00	G
Material B	30%	5.44	4.92	7.31	5.10	3.75	6.36	5.48	A
Zone 3 area (Medium abrasion risk)									
Material C	10%	7.01	7.59	6.96	8.02			7.39	G
Material B	90%	5.44	4.92	7.31	5.10	3.75	6.36	5.48	G
Zone 4 area (Low abrasion risk)									
Material B	80%	5.44	4.92	7.31	5.10	3.75	6.36	5.48	G
Material D	20%	0.93	0.86					0.89	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.

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	1084	1947	1522	1857	1153	1512	G
Zone EZ	674	1450	1499	1841	1383	1369	G
Zones 3 & 4	1394	1443	1280	1417	1095	1325	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 in percentage (%) within the Zone.

Impact protector type	Elbow		Shoulder	
Average force (kN)	20.1	A	18.5	A
Maximum force (kN)	28.3	M	26.4	M
Coverage of zone 1 area	80%		120%	
Coverage of zone after displacement	80%		120%	

Individual test results

Impact force (kN)	Elbow			Shoulder		
Strike location	**A**	**B**	**C**	**A**	**B**	**C**
Impact Protector 1	17.8	22.3	28.1	14.4	14.1	18.3
Impact Protector 2	15.5	19.0	28.3	15.3	22.0	26.4
Impact Protector 3	13.0	17.1	20.0	15.8	17.2	23.3

The diagram below is a visual indication of the likely impact performance of each impact protector calculated from the data in the table above.

Determining Criteria		Good	Acceptable	Marginal	Poor*
Burst strength	(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} ($kPam^2/W$)	74.0	68.3	71.2

	1	2	**Average**
Thermal Resistance - R_{ct} (Km^2/W)	0.253	0.234	0.243

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	RST
Model	R-18
Type	Jacket - Leather
Date purchased	4 July 2018
Tested by	AMCAF, Deakin University
Garment test reference	J18L03
Rating first published	October 2018
Rating updated	1 October 2021