


**This MotoCAP safety rating applies to:**

**Brand:** Bull-it  
**Model:** SP120 Lite Heritage Easy  
**Type:** Pants - Denim  
**Date purchased:** 4 July 2018  
**Sizes tested:** 36  
**Gender:** M  
**Style:** All Purpose  
**Test code:** P18D03

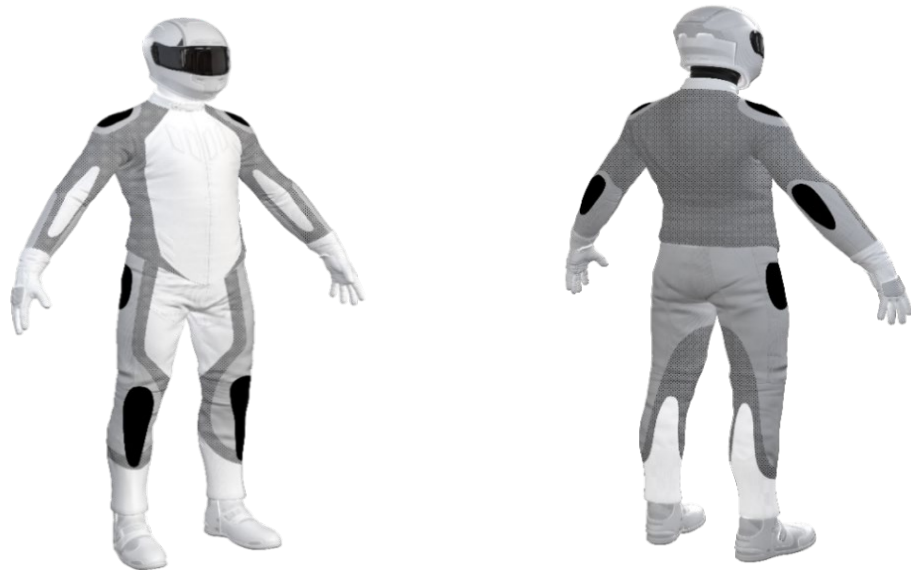
**Test Results Summary:**

	Rating	Result
MotoCAP Protection Rating	★	15.2
Abrasion	2/10	1.42
Burst	8/10	804
Impact	1/10	0.0
MotoCAP Comfort Rating	★★★	0.515
Moisture Vapour Resistance		22.5
Thermal Resistance		0.193
Water Resistance	N/A	

This garment is fitted with pockets for impact protectors for the knees and hips but was not fitted with impact protectors.

**Jacket and Pants - Crash Impact Risk Zones**

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


**Zone 1**


High risk of abrasion  
High risk of impact

**Zone 2**


High risk of abrasion

**Zone 3**


Medium risk of abrasion

**Zone 4**


Low risk of abrasion

**Bull-it SP120 Lite Heritage Easy  
Denim Pants**

## 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 denim outer, Vectran knitted fabric plus mesh inner liner
Material B:	Single layer of denim outer plus mesh inner liner
Material C:	Single layer of denim

Zone	Coverage (%)	Abrasion time for each test (s)						Average (s)	
		1	2	3	4	5	6		
<b>Zone 1 and 2 areas (High abrasion risk)</b>									
Material A	100%	1.89	2.14	2.02	1.32	2.27	2.55	2.03	M
<b>Zone 3 area (Medium abrasion risk)</b>									
Material B	50%	0.87	0.71	0.46	0.95	0.56	0.44	0.66	P
Material C	50%	0.42	0.31	0.39	0.37	0.31	0.37	0.36	P
<b>Zone 4 area (Low abrasion risk)</b>									
Material B	50%	0.87	0.71	0.46	0.95	0.56	0.44	0.66	M
Material C	50%	0.42	0.31	0.39	0.37	0.31	0.37	0.36	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.



		Good	Acceptable	Marginal	Poor
<b>Determining Criteria</b>					
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	820	1209	1152	639	865	937	A
Zone EZ	742	646	725	678	684	695	M
Zones 3 & 4	920	806	855	607	594	757	M

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

Burst strength

	Good	Acceptable	Marginal	Poor
(kPa)	> 1000	800 - 1000	500 - 799	< 500

## Impact Protection

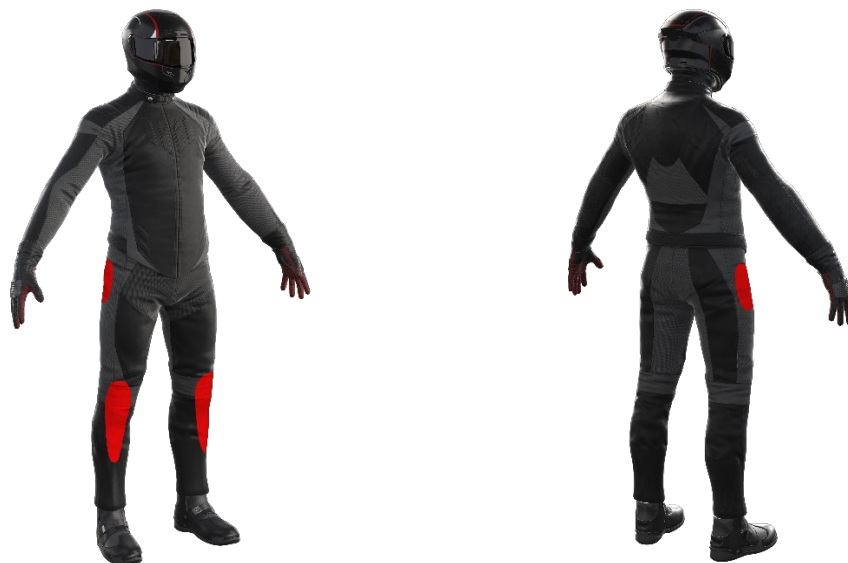
The garment was tested for impact protection and coverage following the MotoCAP test protocols. The table below shows the test results for each strike on each impact protector in kilonewton (kN) and their area of coverage in percentage (%) within the Zone.

Impact protector type	Knee		Hip	
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)	Knee			Hip		
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.



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 <sup>2</sup> /W)	23.5	21.5	22.5

	1	2	Average
Thermal Resistance - $R_{ct}$ (Km <sup>2</sup> /W)	0.190	0.196	0.193

### 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	Bull-it
Model	SP120 Lite Heritage Easy
Type	Pants - Denim
Date purchased	4 July 2018
Tested by	AMCAF, Deakin University
Garment test reference	P18D03
Rating first published	October 2018
Rating updated	1 October 2021