This MotoCAP safety rating applies to:

Brand:	Neo
Model:	Mugello
Type:	Pants - Textile
Date purchased:	29 November 2019
Sizes tested:	L
Gender:	M & F
Style:	All Purpose
Test code:	P18T07

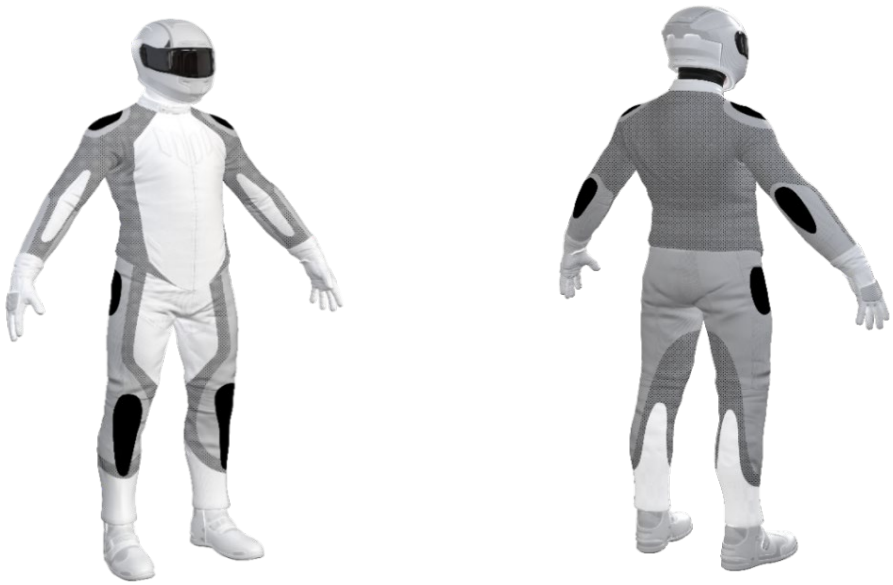
Test Results Summary:

	Rating	Score
MotoCAP Protection Rating	★	13.6
Abrasion	1/10	0.08
Burst	10/10	1319
Impact	1/10	0.0
MotoCAP Comfort Rating	★	0.279
Moisture Vapour Resistance		56.1
Thermal Resistance		0.261
Water resistance	8/10	4.0

This garment is fitted with impact protectors for the knees and with pockets for aftermarket impact protectors for the hips. This garment has horizontal vents above each knee 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 in accordance with 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:	Woven synthetic fabric shell, water resistant liner, mesh inner liner
Material B:	Polyurethane imitation leather outer, water resistant layer and mesh inner 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	20%	1.10	0.65	0.92	0.95	0.70	1.92	1.04	P
Material B	80%	0.50	0.46	0.44	0.49	0.42	0.52	0.47	P
Zone 3 area (Medium abrasion risk)									
Material B	100%	0.50	0.46	0.44	0.49	0.42	0.52	0.47	P
Zone 4 area (Low abrasion risk)									
Material A	20%	1.10	0.65	0.92	0.95	0.70	1.92	1.04	A
Material B	80%	0.50	0.46	0.44	0.49	0.42	0.52	0.47	M

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

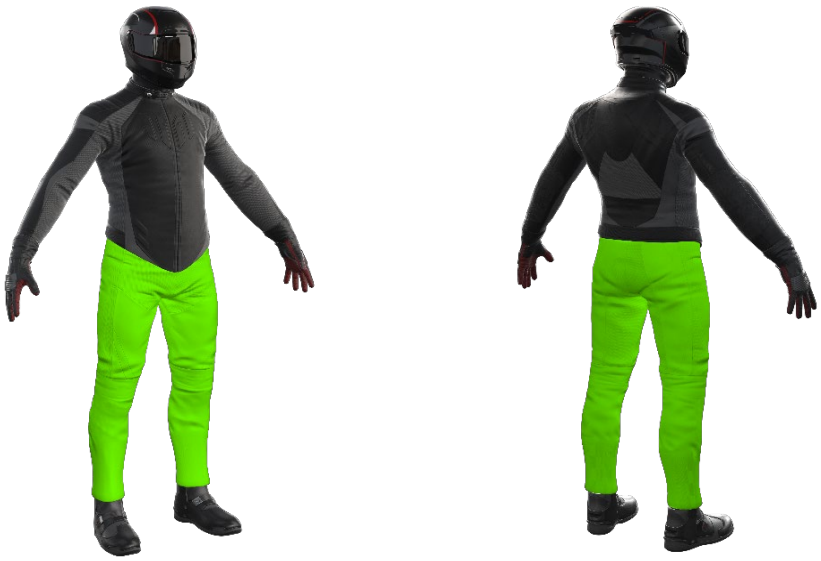
The garment's burst strength was tested in accordance with MotoCAP test protocols. The table below shows

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	1415	1806	1274	1498	1946	1588	G
Zone EZ	1011	771	1205	1435	938	1072	G
Zones 3 & 4	1353	1247	1203	1133	1438	1275	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 in accordance with 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 as a proportion (%) of the Zone.

Impact protector type	Knee		Hip	
Average force (kN)	33.6	P		P
Maximum force (kN)	34.8	P		P
Coverage of zone 1 area	100%		0%	
Coverage of zone after displacement	50%		0%	

Individual test results

Impact force (kN)	Knee			Hip	No impact protector present	
Strike location	**A**	**B**	**C**	**A**	**B**	**C**
Impact Protector 1	34.8	33.9	33.6			
Impact Protector 2	33.6	32.4	33.8			
Impact Protector 3	33.7	33.6	33.2			

The diagram below is a visual indication of the likely performance of each impact protector calculated from the data in the table above. The colour coding is based on the worst performing score for average or maximium force for 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

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} ($kPam^2/W$)	54.7	57.4	56.1

	1	2	Average
Thermal Resistance - R_{ct} (Km^2/W)	0.267	0.256	0.261

Water spray and rain resistance

This garment 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 increased weight (g) and proportion (%) of the garment and undergarments due to water absorption.

	Water absorbed by garment		Water absorbed by underwear	
	Mass (g)	Percentage (%)	Mass (g)	Percentage (%)
Pants 1	606.7	46%	68.6	26%
Pants 2	263.1	20%	11.0	4%
Average	263.1	20%	11.0	4%

Location of wetting:

There was no visible wetting evident on the cotton undergarments worn under the motorcycle water resistant pants after testing. The pants 1 result was not included as wetting had been caused by the jacket used during testing.