

MOTOCAP

### This MotoCAP safety rating applies to:

Brand:	Five
Model:	Classic Waterproof
Туре:	Glove - Leather
Date purchased:	28 July 2022
Sizes tested:	L, XL and 2XL
Test glove gender:	Male
Style:	All Purpose
RRP:	\$129.95

# **Test Results Summary:**

	Rating	Score
MotoCAP Protection Rating	*	1.1
Abrasion	4/10	2.23
Seam strength	1/10	0.9
Impact	1/10	0.0
Water resistance	7/10	4.6

These gloves are not fitted with impact protection. There is no provision for ventilation to allow airflow movement through the glove.

# Gloves - Crash Impact Risk Zones

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





# Abrasion Resistance

The gloves 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	4/10
Abrasion score	2.23

Determining Criteria	Area	Good	Acceptable	Marginal	Poor
High abrasion risk	Zone 1 & 2	> 4.0	2.7 - 4.0	1.2 - 2.6	< 1.2
Medium abrasion risk	Zone 3	2.5	1.8 - 2.5	0.8 - 1.7	< 0.8

**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.

Zones 1	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average
Material A	25%	4.10	6.87	10.58	4.61	4.16	2.70	5.50
Material B	75%	2.45	5.20	2.74	3.27	3.00	2.13	3.13
Zone 2	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average
Material B	100%	2.45	5.20	2.74	3.27	3.00	2.13	3.13
Zone 3	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average
Material B	55%	2.45	5.20	2.74	3.27	3.00	2.13	3.13
Material C	45%	0.95	3.65	2.66	2.66	1.88	1.86	2.28

#### Details of materials used in glove - derived from manufacturer provided information

Material A	Leather patch over foam layer, leather shell, water-resistant layer, foam layer and fabric inner liner
Material B	Leather shell, water-resistant layer, foam layer and fabric inner liner
Material C	Double layer of stretch fabric



# Seam Tensile Strength

The tensile strength of the gloves seams and glove restraint (the force required to drag off a properly fastened glove) were tested in accordance with MotoCAP test protocols. The diagram below illustrates the tensile strength and wrist restraint results in terms of the likely performance of the glove in a crash and is a pictorial representation of the data from the tables below.



Seam Strength PerformanceSeam strength rating1/10Seam strength score0.9

<b>Determining Criteria</b>	Unit	Good	Acceptable	Marginal	Poor
Seam tensile strength	(N/mm)	> 11	9 - 11	6 - 8.9	< 6
Glove restraint	(N)	> 200	100 - 200	50 - 99	<50

**Individual Seam Strength Results:** - The table below shows the seam tensile strength in newtons per millimeter (N/mm) for each seam tested by Zone and the average result for each Zone.

Seam tensile strength (N/mm)

Area	1	2	3	4	5	Average
Zones 1 & 2	11.06	3.81	8.77	4.58	6.21	6.89 M
Zone 3	13.08	8.82	4.64	6.84	2.13	7.10 M

**Individual Glove Restraint Results:** - The table below shows the force required to remove the restrained glove in newtons (N) for each of the five gloves tested and the average result.

Glove restraint (N)

Glove	1	2	3	4	5	Average
Wrist restraint	28.2	23.6	21.6	25.8	23.2	24.5 P



### **Impact Protection**

These gloves were not tested for impact protection as impact protection was not fitted to the gloves. 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 in the impact protection ratings.



\* Poor may also indicate that no impact protector is present in the glove

**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 in percentage (%) within the Zone. Impact forces are capped at a maximum of 10.0kN.

Impact protector type	Knuckles	Palm
Average force (kN)	P	P
Maximum force (kN)	P	P
Coverage of zone 1 area	0%	0%

**Individual test results:** - The table below shows the test results for each strike on each impact protector in kilonewtons (kN) and the position of the strike. Impact forces are capped at a maximum of 10.0kN.

Impact protector type	Knuckles	No impact prot	ector present	Palm	No impact protector present
Strike number	1	2	3	1	2
Impact Protector 1					
Impact Protector 2					
Impact Protector 3					

## Water spray and rain resistance

This glove 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 glove and under-glove due to water absorption.

	Water absorbe	ed by glove	Water absorbed by cotton glove		
	Volume (ml)	Percentage (%)	Volume (ml)	Percentage (%)	
Pair 1	180.4	114%	4.0	20%	
Pair 2	151.8	90%	14.5	63%	
Average	166.1	102%	9.3	42%	

### Location of wetting:

There was major wetting to the cotton under-glove present at the wrist and top of the hand in two of the four gloves tested and major wetting to the top of the hand of the other two gloves tested.

Assessment D	Details.
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Five Classic Waterproof Glove - Leather 28 July 2022 AMCAF, Deakin University MotoCAP Chief Scientist G21L18 November 2022 9 November 2022