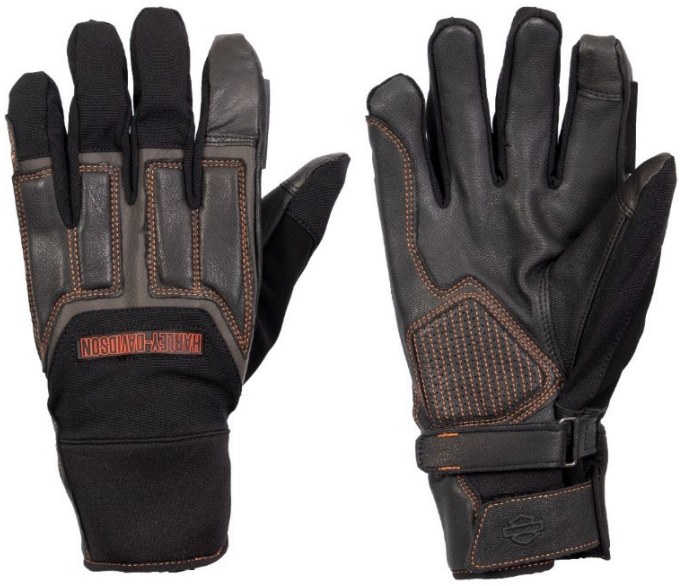


This MotoCAP safety rating applies to:

Brand:	Harley Davidson
Model:	Vanocker Under Cuff
Type:	Glove - Leather/Textile
Date purchased:	13 July 2020
Sizes tested:	L, 2XL and 3XL
Test glove gender:	Male
Style:	Cruiser
RRP:	$173.91

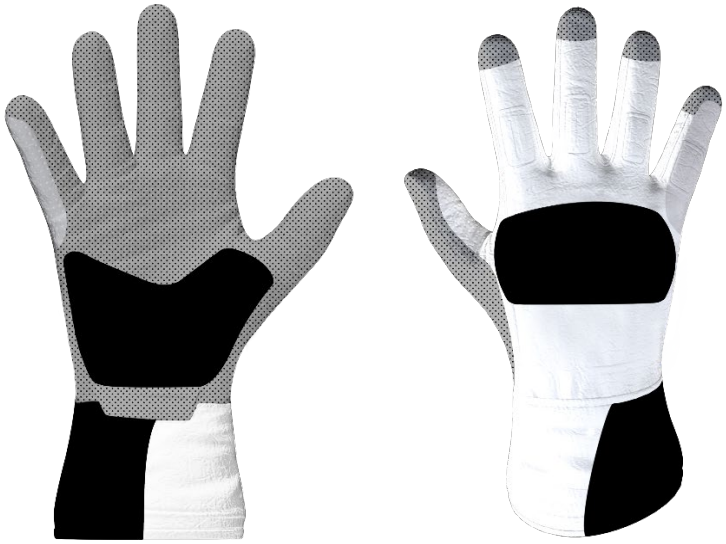
Test Results Summary:

	Rating	Score
MotoCAP Protection Rating	★★	2.3
Abrasion	7/10	3.88
Seam strength	1/10	2.5
Impact	1/10	2.6
Water resistance	1/10	211

These gloves are fitted with impact protectors for the knuckles and palms. There is no impact protection provided for the wrists. 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.



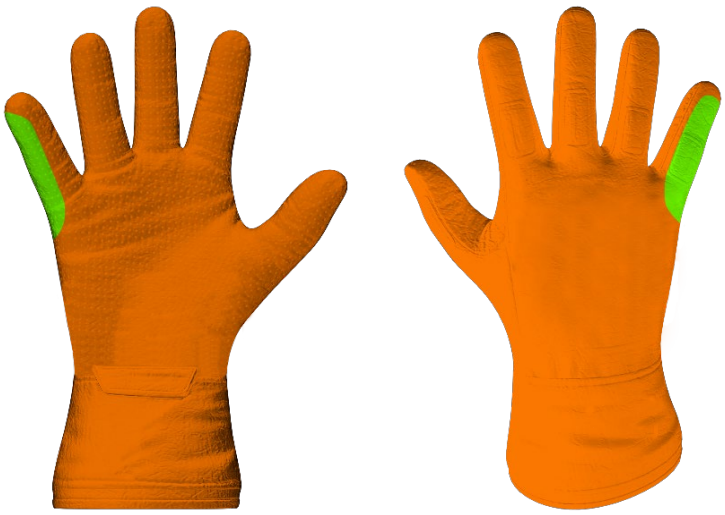
Impact protection

Knuckles	✓
Palm	✓
Wrist	

Zone 1	Zone 2	Zone 3	Zone 4
High risk of impact	High risk of abrasion	Medium risk of abrasion	Low risk of abrasion

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	7/10
Abrasion score	3.88

Determining Criteria	Area	Good	Acceptable	Marginal	Poor
High abrasion risk	Zone 2	> 4.0	2.7 - 4.0	1.2 - 2.6	< 1.2
Medium abrasion risk	Zone 3	3.5	2.5 - 3.5	1.0 - 2.4	< 1.0
Low abrasion risk	Zone 4	>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.

Abrasion time for each test (seconds)

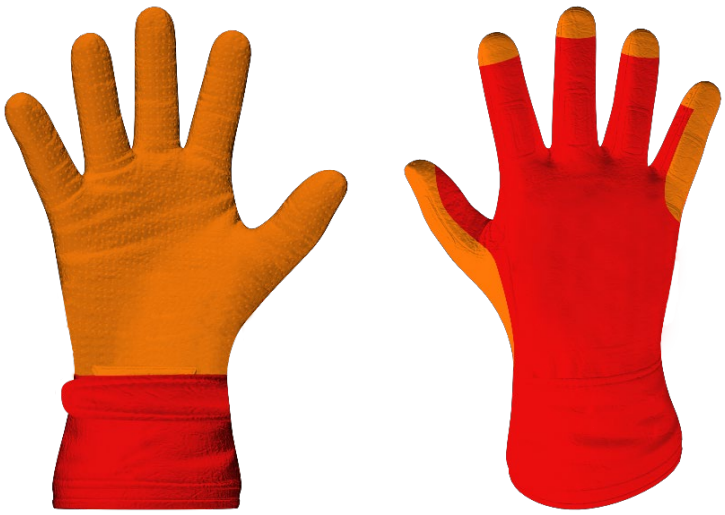
Zones 1 & 2	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	**Average**	
Material A	100%	5.14	5.54	4.34	5.91	3.34	7.27	5.26	G
Zone 3	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	**Average**	
Material B	100%	1.71	1.57	2.11	4.17	1.95	2.37	2.31	M
Zone 4	Coverage (%)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	**Average**	
Material B	10%	1.71	1.57	2.11	4.17	1.95	2.37	2.31	A
Material C	90%	1.28	0.29	1.23	0.86	1.24	0.25	0.86	M

Details of materials used in glove

Material A	Leather patch over leather shell, water resistant layer and fabric inner liner
Material B	Leather shell, water resistant layer and fabric inner liner
Material C	Fabric shell, water resistant layer and fabric inner liner

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 Performance	
Seam strength rating	1/10
Seam strength score	2.5

Determining Criteria	Unit	Good	Acceptable	Marginal	Poor
Seam tensile strength	(N/mm)	> 15	10 - 15	6.5 - 9.9	< 6.5
Glove restraint	(N)	> 400	300 - 400	200 - 299	<200

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 2 & 3	6.51	6.60	11.96	10.33	5.18	8.11	M
Zone 4	9.04	N/A	6.45	2.40	5.23	5.78	P

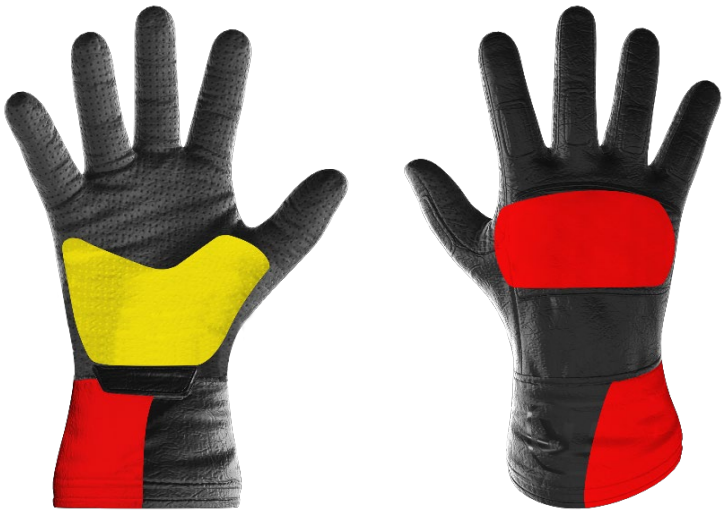
Individual Glove Restraint Results: - The table below shows the force required to remove the restrained glove in newtons (N) for each of the five gloves tested and the average result.

Glove restraint (N)

Glove	1	2	3	4	5	Average	
Wrist restraint	159.9	127.3	141.7	134.7	133.6	139.4	P

Impact Protection

The glove 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 maximium force for each impact zone. Areas shaded black are not considered in the impact protection ratings.



Impact Protection Performance	
Impact rating	1/10
Impact score	2.6

Determining Criteria	Unit	Good	Acceptable	Marginal	Poor
Knuckle and wrist Impact force	(kN)	< 2	2 - 4.9	5 - 8	> 8
Palm impact force	(kN)	< 4	4 - 5.9	6 - 8	>8

* 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		Wrist	
Average force (kN)	9.8	P	4.3	A		P
Maximum force (kN)	10.0	P	4.8	A		P
Coverage of zone 1 area	100%		100%		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			Palm	
Strike number	1	2	3	1	2
Impact Protector 1	10.0	10.0	9.4	3.7	4.5
Impact Protector 2	10.0	10.0	10.0	3.9	4.7
Impact Protector 3	9.4	10.0	9.4	4.8	4.3

Impact protector type	Wrist	No impact protector present
Strike number	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 absorbed by glove		Water absorbed by cotton glove	
	Volume (ml)	Percentage (%)	Volume (ml)	Percentage (%)
Pair 1	143	63%	48.3	225%
Pair 2	122	54%	42.3	197%
Average	132	59%	45.3	211%

Location of wetting:

Visible wetting to the cotton under-glove was present over the entire hand in all four of the gloves tested.

Assessment Details.

Brand	Harley Davidson
Model	Vanocker Under Cuff
Type	Glove - Leather/Textile
Date purchased	13 July 2020
Tested by	AMCAF, Deakin University
Garment test reference	G19L63
Rating first published	December 2020
Rating updated	15 December 2020