

TEST REPORT

COMPANY NAME:
ADDRESS:

EMAIL:
ATTN:
TEL:
FAX:

MECDEX
LIBERMANN International
P.O Box-1166 Harrar, Wazirabad
Road, Sialkot-51310, Pakistan
ali.anwar@libermann.com
Ali Anwar
+92 52 3252201-up to 5
+92 52 3252208

Report No.:
TRF No.:
Date In:
Date Out:
No. Of Working Days:
Pretest for Buyer
Temperature & Humidity:

FTL-1460/170823
FTL-1460/170823
17-08-23
23-08-23
05 Days
Not Listed
23°C ± 2 53 ± 5%

Sample Description:	Frost Cut Lite Gloves
Color(s):	Black & Hi-Viz Orange
Lab Id Color(S):	Black & Hi-Viz Orange
P.O. No(s):	Not Listed
Article No(s):	WN-865
Season:	Not Listed
Quantity Submitted:	10 Pairs
Country of Origin:	Pakistan
Country of Destination:	Europe
Dept:	Not Listed
End Use:	Not Listed

Submitted Fiber Content:	Not Listed
Multi Layers	PU Sui Serino Grip Material + Water Barrier + Kevlar Cut-C Fabric & Micro Fleece.
Test Requested:	EN 388: 2016 + A1: 2018, EN ISO 21420: 2020, ANSI Cut Resistance & EN 511: 2006.
Submitted Care Instruction:	Not Listed
Suggested Care Instruction:	Not Listed

PHOTO OF THE SUBMITTED SAMPLE



EN388: 2016 +A1:2018



2 X 2 1 C

EN511:2006



3 2 1

FIRST TESTING LAB
AUTHORIZED SIGNATORIES

A-Basif
Test Conducted by

Rehan
Test Checked by

[Signature]
Approved By

SUMMARY OF TEST RESULTS

TEST PROPERTY	Standard Method	Results	Comments
ABRASION RESISTANCE	EN 388: 2016 + A1: 2018	Level-2	
BLADE CUT RESISTANCE	EN 388: 2016 + A1: 2018	Level-X	
TDM CUT RESISTANCE	EN 388:2016+A1:2018	Level-C	
TEAR RESISTANCE	EN 388: 2016 + A1: 2018	Level-2	
PUNCTURE RESISTANCE	EN 388: 2016 + A1: 2018	Level-1	
ANSI Cut Resistance	ANSI/ISEA105-2016 (ASTM F2992)	Level-A3	
SIZING	EN ISO 21420:2020	Pass	
DEXTERITY	EN ISO 21420:2020	Level-3	
CONVECTIVE COLD RESISTANCE	EN 511: 2006	Level-3	
CONTACT COLD RESISTANCE	EN 511: 2006	Level-2	
WATER PENETRATION	EN 511: 2006	Level-1	

Test Results:

Parameter	Test Requirement of EN 388: 2016 + A1: 2018		Test Results	Remarks														
6.1 Abrasion Resistance (Cycles) Tested – Palm Portion Used abrasant: Klingspor PL 31 B	<table><tr><th>Level of Performance</th><th>Number of Cycles</th></tr><tr><td>1</td><td>100</td></tr><tr><td>2</td><td>500</td></tr><tr><td>3</td><td>2000</td></tr><tr><td>4</td><td>8000</td></tr></table>		Level of Performance	Number of Cycles	1	100	2	500	3	2000	4	8000	>500 & <2000 Cycles	Compiles with Level - 2				
Level of Performance	Number of Cycles																	
1	100																	
2	500																	
3	2000																	
4	8000																	
6.2 Blade Cut Resistance (i) Tested – Palm <i>Blade Thickness – 0.3 mm</i> <i>Angle of Blade – 24°</i>	<table><tr><th>Level of Performance</th><th>Index (i)</th></tr><tr><td>1</td><td>> 1.2</td></tr><tr><td>2</td><td>≥ 2.5</td></tr><tr><td>3</td><td>≥ 5.0</td></tr><tr><td>4</td><td>≥ 10.0</td></tr><tr><td>5</td><td>≥ 20.0</td></tr></table>		Level of Performance	Index (i)	1	> 1.2	2	≥ 2.5	3	≥ 5.0	4	≥ 10.0	5	≥ 20.0	-	Level-X		
Level of Performance	Index (i)																	
1	> 1.2																	
2	≥ 2.5																	
3	≥ 5.0																	
4	≥ 10.0																	
5	≥ 20.0																	
6.3 TDM Cut Resistance <i>EN ISO 13997: 2016</i> Tested – Palm <i>Type of Blade (Straight)</i>	<table><tr><th>Level of Performance</th><th>Cut Load N</th></tr><tr><td>A</td><td>> 2 Newtons</td></tr><tr><td>B</td><td>≥ 5 Newtons</td></tr><tr><td>C</td><td>≥ 10 Newtons</td></tr><tr><td>D</td><td>≥ 15 Newtons</td></tr><tr><td>E</td><td>≥ 22 Newtons</td></tr><tr><td>F</td><td>≥ 30 Newtons</td></tr></table>		Level of Performance	Cut Load N	A	> 2 Newtons	B	≥ 5 Newtons	C	≥ 10 Newtons	D	≥ 15 Newtons	E	≥ 22 Newtons	F	≥ 30 Newtons	>10 & <15 Newtons	Level-C
Level of Performance	Cut Load N																	
A	> 2 Newtons																	
B	≥ 5 Newtons																	
C	≥ 10 Newtons																	
D	≥ 15 Newtons																	
E	≥ 22 Newtons																	
F	≥ 30 Newtons																	
6.4 Tear Resistance (Newton) Tested – All Layers	<table><tr><th>Level of Performance</th><th>Strength (N)</th></tr><tr><td>1</td><td>10</td></tr><tr><td>2</td><td>25</td></tr><tr><td>3</td><td>50</td></tr><tr><td>4</td><td>75</td></tr></table>		Level of Performance	Strength (N)	1	10	2	25	3	50	4	75	> 25 & < 50 Newton	Level-2				
Level of Performance	Strength (N)																	
1	10																	
2	25																	
3	50																	
4	75																	
6.5 Puncture Resistance (Newton) Tested – Palm All Layers Together	<table><tr><th>Level of Performance</th><th>Strength (N)</th></tr><tr><td>1</td><td>20</td></tr><tr><td>2</td><td>60</td></tr><tr><td>3</td><td>100</td></tr><tr><td>4</td><td>150</td></tr></table>		Level of Performance	Strength (N)	1	20	2	60	3	100	4	150	>20 & <60 Newton	Level-1				
Level of Performance	Strength (N)																	
1	20																	
2	60																	
3	100																	
4	150																	

The specified performance levels are valid for only the palm area of this glove.

Test Results:

Parameter	Test Requirement ANSI/ISEA 105-2016		Test Results	Remarks
6.3 TDM Cut Resistance <i>EN ISO 13997: 2016</i> <i>Tested – Palm</i> <i>Type of Blade (Straight)</i>		Level of Performance	Cut Load N	> 1000 & < 1500 Grams Level-A3
		A1	> 200 Grams	
		A2	≥ 500 Grams	
		A3	≥ 1000Grams	
		A4	≥ 1500 Grams	
		A5	≥ 2200 Grams	
		A6	≥ 3000 Grams	
		A7	≥ 4000 Grams	
		A8	≥ 5000 Grams	
		A9	≥ 6000 Grams	

Test Results:

Parameter	Test Requirement EN ISO 21420: 2020		Test Results	Remarks
5.1 Sizing	Size		Lab Analysis	PASS
	Submitted Size: Small, Medium, Large, X-Large, XX-Large, XXX-Large		➤ Hand Length: All gloves meet the requirements of standard method. ➤ Circumference: All gloves meet the requirements of standard method.	
5.2 Dexterity Pin sizes in millimeters (mm)			Level-3	Pass
	Level of Performance	Diameter of Pins (mm)		
	1	11		
	2	9.5		
	3	8		
	4	6.5		
5	5			

The above-specified results are valid for only this glove model.

Test Results:

Parameter	EN 511: 2006	Test Requirement		Test Results	Remarks
Convective Cold Resistance	Clause 1	Level of Performance	Thermal Insulation I_{TR}	>0.22 I _{TR} & < 0.30 I _{TR}	Level-3
		0	< 0.10		
		1	≥ 0.10 <0.15		
		2	≥ 0.15 <0.22		
		3	≥ 0.22 <0.30		
Contact Cold Resistance	Clause 2	Level of Performance	Thermal Resistance R(m²K/W)	> 0.50 & < 0.100 R(m²K/W)	Level-2
		0	< 0.25 R		
		1	≥ 0.25 <0.50		
		2	≥ 0.50 <0.100		
		3	≥ 0.100 <0.150		
Water Penetration	Clause 3	Level of Performance	Water Penetration	NO	Compiles with Level-1
		0	Yes		
		1	No		

The above specified results are valid for only this glove model.

“End of Report”