

TEST REPORT

COMPANY NAME:	MECDEX	Report No.:	FTL-1285/080923
ADDRESS	LIBERMANN International P.O Box-1166 Harrar, Wazirabad Road, Sialkot-51310, Pakistan	TRF No.:	FTL-1285/080923
EMAIL:	ali.anwar@libermann.com	Date In:	08 th Oct 2023
ATTN:	Ali Anwar	Date Out:	16 th Oct 2023
TEL:	+92 52 3252201-up to 5	No. Of Working Days:	08 Days
FAX:	+92 52 3252208	Pretest for Buyer	Not Listed
		Temperature & Humidity:	23°C ± 2 53 ± 5%

Sample Description:	ThinGuard 21A7 Gloves
Color(s):	Grey, Black
Lab Id Color(S):	Grey, Black
P.O. No(s):	Not Listed
Article No(s):	ThinGuard 21A7
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	21GG HPPE Tungsten Nylon & Spandex Liner
Test Requested:	EN 388:2016+A1:2018, EN ISO 21420:2020 & ANSI/ISEA105-2016 (ASTM F2992)
Submitted Care Instruction:	Not Listed
Suggested Care Instruction:	Not Listed

PHOTO OF THE SUBMITTED SAMPLE



EN388: 2016 +A1:2018



4 X 3 1 F

**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-4	
BLADE CUT RESISTANCE	EN 388:2016+A1:2018	Level-X	
TDM Cut Resistance	EN 388:2016+A1:2018	Level- F	
TEAR RESISTANCE	EN 388:2016+A1:2018	Level-3	
PUNCTURE RESISTANCE	EN 388:2016+A1:2018	Level-1	
TDM Cut Resistance	ANSI/ISEA105-2016 (ASTM F2992)	Level-A7	
Taber Abrasion Resistance	ANSI/ISEA105-2016 (ASTM D3884)	N/A	
Puncture Resistance (Nail Puncture)	ANSI/ISEA105-2016 (EN388)	N/A	
Puncture Resistance (Hypodermic Needle)	ANSI/ISEA105-2016 (EN388)	N/A	
SIZING	EN ISO 21420:20020	Pass	
DEXTERITY	EN ISO 21420:20020	Level-5	

Test Results:

Parameter	Test Requirement EN 388:2016+A1:2018	Test Results	Remarks														
6.1 Abrasion Resistance (Rubs) Tested – Palm Portion Used abradant: Klingspor PL 31 B	<table border="1"> <thead> <tr> <th>Level of Performance</th> <th>Number of Cycles</th> </tr> </thead> <tbody> <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 style="background-color: #cccccc;"> <td>4</td> <td>8000</td> </tr> </tbody> </table>	Level of Performance	Number of Cycles	1	100	2	500	3	2000	4	8000	>8000 Rubs	Level - 4				
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 border="1"> <thead> <tr> <th>Level of Performance</th> <th>Index (i)</th> </tr> </thead> <tbody> <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> </tbody> </table>	Level of Performance	Index (i)	1	> 1.2	2	≥ 2.5	3	≥ 5.0	4	≥ 10.0	5	≥ 20.0	N/A	N/A		
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 border="1"> <thead> <tr> <th>Level of Performance</th> <th>Cut Load N</th> </tr> </thead> <tbody> <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 style="background-color: #cccccc;"> <td>F</td> <td>≥ 30 Newtons</td> </tr> </tbody> </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	> 30 Newtons	Level-F
Level of Performance	Cut Load N																
A	> 2 Newtons																
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6.4 Tear Resistance (Newton)	<table border="1"> <thead> <tr> <th>Level of Performance</th> <th>Strength (N)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10</td> </tr> <tr> <td>2</td> <td>25</td> </tr> <tr style="background-color: #cccccc;"> <td>3</td> <td>50</td> </tr> <tr> <td>4</td> <td>75</td> </tr> </tbody> </table>	Level of Performance	Strength (N)	1	10	2	25	3	50	4	75	> 50 & < 75 Newton	Level-3				
Level of Performance	Strength (N)																
1	10																
2	25																
3	50																
4	75																
6.5 Puncture Resistance (Newton)	<table border="1"> <thead> <tr> <th>Level of Performance</th> <th>Strength (N)</th> </tr> </thead> <tbody> <tr style="background-color: #cccccc;"> <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> </tbody> </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																
6.6 Impact Resistance (Load in Kilo Newton)	<table border="1"> <thead> <tr> <th>Level of Performance</th> <th>Level-1</th> <th>Level-2</th> </tr> </thead> <tbody> <tr> <td>Single Result</td> <td>≤ 9.0 KN</td> <td>≤ 5.0 KN</td> </tr> <tr> <td>Mean Transmitted Force</td> <td>< 7.0 KN</td> <td>< 4.0 KN</td> </tr> </tbody> </table>	Level of Performance	Level-1	Level-2	Single Result	≤ 9.0 KN	≤ 5.0 KN	Mean Transmitted Force	< 7.0 KN	< 4.0 KN	N/A	N/A					
Level of Performance	Level-1	Level-2															
Single Result	≤ 9.0 KN	≤ 5.0 KN															
Mean Transmitted Force	< 7.0 KN	< 4.0 KN															

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

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Parameter	Test Requirement ANSI/ISEA 105-2016	Test Results	Remarks																				
6.3 TDM Cut Resistance ANSI/ISEA105-2016 (ASTM F2992) <i>Tested – Palm</i> <i>Type of Blade (Straight)</i>	<table border="1"> <thead> <tr> <th>Level of Performance</th> <th>Cut Load N</th> </tr> </thead> <tbody> <tr> <td>A1</td> <td>> 200 Grams</td> </tr> <tr> <td>A2</td> <td>≥ 500 Grams</td> </tr> <tr> <td>A3</td> <td>≥ 1000Grams</td> </tr> <tr> <td>A4</td> <td>≥ 1500 Grams</td> </tr> <tr> <td>A5</td> <td>≥ 2200 Grams</td> </tr> <tr> <td>A6</td> <td>≥ 3000 Grams</td> </tr> <tr> <td>A7</td> <td>≥ 4000 Grams</td> </tr> <tr> <td>A8</td> <td>≥ 5000 Grams</td> </tr> <tr> <td>A9</td> <td>≥ 6000 Grams</td> </tr> </tbody> </table>	Level of Performance	Cut Load N	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	> 4000 & < 5000 Grams	Level-A7
	Level of Performance	Cut Load N																					
	A1	> 200 Grams																					
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	A7	≥ 4000 Grams																					
	A8	≥ 5000 Grams																					
A9	≥ 6000 Grams																						

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

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

“End of Report”