

TEST REPORT

COMPANY NAME:	MECDEX	Report No.:	FTL-1458/170823
ADDRESS	LIBERMANN International P.O Box-1166 Harrar, Wazirabad Road, Sialkot-51310, Pakistan	TRF No.:	-
EMAIL:	ali.anwar@libermann.com	Date In:	17 th Aug 2023
ATTN:	Ali Anwar	Date Out:	24 th Aug 2023
TEL:	+92 52 3252201-up to 5	No. Of Working Days:	07 Days
FAX:	+92 52 3252208	Pretest for Buyer	Not Listed
		Temperature & Humidity:	23°C ± 2 53 ± 5% R.H

Sample Description:	Hand Warmer Gloves
Color(s):	Black
Lab Id Color(S):	-
P.O. No(s):	-
Article No(s):	WN-863
Season:	Not Listed
Quantity Submitted:	10 Pairs
Country of Origin:	Pakistan
Country of Destination:	Europe
Dept:	-
End Use:	-

Submitted Fiber Content:	-
Multi Layers	PU Diamond Serino + Water Barrier + Micro Fleece Fabric + WR Cotton Twill fabric
Test Requested:	EN 388: 2016 + A1: 2018, EN ISO 21420: 2020, EN 511: 2006
Submitted Care Instruction:	-
Suggested Care Instruction:	-

PHOTO OF THE SUBMITTED SAMPLE



EN388: 2016 +A1:2018



2 1 2 2 X

EN511:2006



2 3 1

**FIRST TESTING LAB
AUTHORIZED SIGNATORIES**


Test Conducted by


Test Checked by


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-1	
TEAR RESISTANCE	EN 388: 2016 + A1: 2018	Level-2	
PUNCTURE RESISTANCE	EN 388: 2016 + A1: 2018	Level-2	
SIZING	EN ISO 21420:2020	Pass	
DEXTERITY	EN ISO 21420:2020	Level-3	
CONVECTIVE COLD RESISTANCE	EN 511: 2006	Level-2	
CONTACT COLD RESISTANCE	EN 511: 2006	Level-3	
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 abradant: 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	> 1.2 & <2.5 Index	Level-1
Level of Performance	Index (i)															
1	> 1.2															
2	≥ 2.5															
3	≥ 5.0															
4	≥ 10.0															
5	≥ 20.0															
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	>60 & <100 Newton	Level-2		
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.

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)	<table><tr><th>Level of Performance</th><th>Diameter of Pins (mm)</th></tr><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></table>		Level of Performance	Diameter of Pins (mm)	1	11	2	9.5	3	8	4	6.5	5	5	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}	> 0.150 I _{TR} & < 0.22 I _{TR}	Level-2
		0	< 0.10		
		1	≥ 0.10 <0.15		
		2	≥ 0.15 <0.22		
		3	≥ 0.22 <0.30		
		4	≥ 0.30 I _{TR}		
Contact Cold Resistance	Clause 2	Level of Performance	Thermal Resistance R(m²K/W)	> 0.100 & < 0.150 R(m²K/W)	Level-3
		0	< 0.25 R		
		1	≥ 0.25 <0.50		
		2	≥ 0.50 <0.100		
		3	≥ 0.100 <0.150		
		4	≥ 0.150 R		
Water Penetration	Clause 3	Level of Performance	Water Penetration	Not	Compiles with Level - 1
		0	Yes		
		1	No		

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

“End of Report”