

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-1242/190823

FTL-1242/190823

19<sup>th</sup> Aug 2023

26<sup>th</sup> Aug 2023

07 Days

Not Listed

23°C ± 2, 50 ± 5% RH

|                         |                     |
|-------------------------|---------------------|
| Sample Description:     | Plasma Guard Gloves |
| Color(s):               | Black, Blue         |
| Lab Id Color(S):        | Black, Blue         |
| P.O. No(s):             | Not Listed          |
| Article No(s):          | WD-721              |
| Season:                 | Not Listed          |
| Quantity Submitted:     | 20 Pairs            |
| Country of Origin:      | Pakistan            |
| Country of Destination: | Europe              |
| Dept:                   | Not Listed          |
| End Use:                | Not Listed          |

|                             |                                                     |
|-----------------------------|-----------------------------------------------------|
| Submitted Fiber Content:    | Not Listed                                          |
| Multi Layers                | Cowhide Split leather + CVC Fleece                  |
| Test Requested:             | EN 388:2016+A1:2018, EN 407:2020, EN ISO 21420:2020 |
| Submitted Care Instruction: | Not Listed                                          |
| Suggested Care Instruction: | Not Listed                                          |

PHOTO OF THE SUBMITTED SAMPLE



EN 388:2016+A1:2018



4 2 4 4 X

EN 407:2020



4 1 2 1 4 X

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-4 |          |
| BLADE CUT RESISTANCE           | EN 388:2016+A1:2018 | Level-2 |          |
| TEAR RESISTANCE                | EN 388:2016+A1:2018 | Level-4 |          |
| PUNCTURE RESISTANCE            | EN 388:2016+A1:2018 | Level-4 |          |
| SIZING                         | EN ISO 21420:2020   | Pass    |          |
| DEXTERITY                      | EN ISO 21420:2020   | Level-3 |          |
| BURNING BEHAVIOUR              | EN 407:2020         | 4       |          |
| CONTACT HEAT                   | EN 407:2020         | 1       |          |
| CONVECTIVE HEAT                | EN 407:2020         | 2       |          |
| RADIANT HEAT                   | EN 407:2020         | 1       |          |
| SMALL SPLASHES OF MOLTEN METAL | EN 407:2020         | 4       |          |

Test Results:

| Parameter                                                                                                                  | Test Requirement EN 388:2016+A1:2018                                                                                                                                                                                                              |  | Test Results         | Remarks          |   |       |   |       |   |       |   |        |                |           |                        |         |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|------------------|---|-------|---|-------|---|-------|---|--------|----------------|-----------|------------------------|---------|
| 6.1 Abrasion Resistance (Cycles)<br><br>Tested – Palm Portion<br><b>Used abradant:</b><br>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   | >8000<br>Rubs  | Level - 4 |                        |         |
| Level of Performance                                                                                                       | Number of Cycles                                                                                                                                                                                                                                  |  |                      |                  |   |       |   |       |   |       |   |        |                |           |                        |         |
| 1                                                                                                                          | 100                                                                                                                                                                                                                                               |  |                      |                  |   |       |   |       |   |       |   |        |                |           |                        |         |
| 2                                                                                                                          | 500                                                                                                                                                                                                                                               |  |                      |                  |   |       |   |       |   |       |   |        |                |           |                        |         |
| 3                                                                                                                          | 2000                                                                                                                                                                                                                                              |  |                      |                  |   |       |   |       |   |       |   |        |                |           |                        |         |
| 4                                                                                                                          | 8000                                                                                                                                                                                                                                              |  |                      |                  |   |       |   |       |   |       |   |        |                |           |                        |         |
| 6.2 Blade Cut Resistance (i)<br><br><b>Tested</b> – Palm<br><i>Blade Thickness – 0.3 mm</i><br><i>Angle of Blade – 24°</i> | <table><tr><th>Level of Performance</th><th>Index (i)</th></tr><tr><td>1</td><td>&gt; 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    | > 2.5 & < 5.0<br>Index | Level-2 |
| 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)<br><br><b>Tested</b> – 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     | > 75<br>Newton | Level-4   |                        |         |
| Level of Performance                                                                                                       | Strength (N)                                                                                                                                                                                                                                      |  |                      |                  |   |       |   |       |   |       |   |        |                |           |                        |         |
| 1                                                                                                                          | 10                                                                                                                                                                                                                                                |  |                      |                  |   |       |   |       |   |       |   |        |                |           |                        |         |
| 2                                                                                                                          | 25                                                                                                                                                                                                                                                |  |                      |                  |   |       |   |       |   |       |   |        |                |           |                        |         |
| 3                                                                                                                          | 50                                                                                                                                                                                                                                                |  |                      |                  |   |       |   |       |   |       |   |        |                |           |                        |         |
| 4                                                                                                                          | 75                                                                                                                                                                                                                                                |  |                      |                  |   |       |   |       |   |       |   |        |                |           |                        |         |
| 6.5 Puncture Resistance (Newton)<br><br><b>Tested</b> – 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    | >150<br>Newton | Level-4   |                        |         |
| 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 & 4XL                                                                                                                                                                  |  | ➤ Hand Length:<br>All gloves meet the requirements of standard method.<br>➤ Circumference:<br>All gloves meet the requirements of standard method. |                       |   |    |   |     |   |   |   |     |   |   |         |      |
| 5.2 Dexterity<br>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.

| Parameter                                         | Test Requirement of EN 407:2020 |                        |                                     | Test Results         | Remarks                 |
|---------------------------------------------------|---------------------------------|------------------------|-------------------------------------|----------------------|-------------------------|
| 6.2 Limited Flame Spread<br>EN 407:2020           | Levels                          | After Flame Time       | After Glow Time                     | AFT= ≤ 2<br>AGT= ≤ 5 | Compiles with Level – 4 |
|                                                   | 1                               | ≤ 20 Seconds           | No Require                          |                      |                         |
|                                                   | 2                               | ≤ 10 Seconds           | ≤ 120                               |                      |                         |
|                                                   | 3                               | ≤ 3 Seconds            | ≤ 25                                |                      |                         |
|                                                   | 4                               | ≤ 2 Seconds            | ≤ 5                                 |                      |                         |
| 6.3 Contact Heat<br>EN 407:2020                   | Levels                          | °C Contact Temperature | Threshold Time (S)                  | ≥ 15 Sec @ 100 °C    | Level-1                 |
|                                                   | 1                               | 100                    | ≥ 15                                |                      |                         |
|                                                   | 2                               | 250                    | ≥ 15                                |                      |                         |
|                                                   | 3                               | 350                    | ≥ 15                                |                      |                         |
|                                                   | 4                               | 500                    | ≥ 15                                |                      |                         |
| 6.4 Convective Heat<br>EN 407:2020                | Performance Level               |                        | Heat Transfer Index (HTI)           | > 7 Seconds          | Level-2                 |
|                                                   | 1                               |                        | ≥ 4 Sec                             |                      |                         |
|                                                   | 2                               |                        | ≥ 7 Sec                             |                      |                         |
|                                                   | 3                               |                        | ≥ 10 Sec                            |                      |                         |
|                                                   | 4                               |                        | ≥ 18 Sec                            |                      |                         |
| 6.5 Radiant Heat<br>EN 407:2020                   | Performance Level               |                        | Heat Transfer T <sub>24</sub> (Sec) | > 7 Seconds          | Level-1                 |
|                                                   | 1                               |                        | ≥ 7 Sec                             |                      |                         |
|                                                   | 2                               |                        | ≥ 20 Sec                            |                      |                         |
|                                                   | 3                               |                        | ≥ 50 Sec                            |                      |                         |
|                                                   | 4                               |                        | ≥ 95 Sec                            |                      |                         |
| 6.6 Small Splashes of Molten Metal<br>EN 407:2020 | Performance Level               |                        | Numbers of Droplets                 | > 35 Drops           | Level-4                 |
|                                                   | 1                               |                        | ≥ 10 Drops                          |                      |                         |
|                                                   | 2                               |                        | ≥ 15 Drops                          |                      |                         |
|                                                   | 3                               |                        | ≥ 25 Drops                          |                      |                         |
|                                                   | 4                               |                        | ≥ 35 Drops                          |                      |                         |

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

“End of Report”