# TEST REPORT

Hardline Laboratory

Report No.： YA90043C/2020
Page： 1 of 9
Date： DEC. 17, 2020

**Zhejiang Lanhine Medical Products LTD.**
1989 Cidong Road, Cidongbinhai District, 315300 Cixi City,
Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA

**The following merchandise was submitted and identified by the applicant as:**

| | |
|---|---|
| Product Description: | Disposable Face Shield |
| Style/Item No.: | 201F |
| Manufacturer/Vendor: | Zhejiang Lanhine Medical Products LTD. |
| Country of Origin: | China |
| SGS Reference No.: | NBHL2009013493MD |

**We have tested the submitted sample(s) as requested and the following results were obtained:**

Test Requested:
1. EN 166:2001 / BS EN 166:2002 Personal eye-protection – Specifications (clause 6.2 not evaluated and clause 7.1.4.2.2 excluded)
2. EN ISO 12312-1:2013+A1:2015 Eye and face protection — Sunglasses and related eyewear — Part 1:Sunglasses for general use
   Clause 7.3 Impact resistance of the filter, strength level 1

Optional Requirements: 7.2.4 Protection Against Droplets and Splashes of Liquids (3)

Test Method & Result: --- See following sheet(s) ---

Date of Receipt: SEP. 11, 2020 & OCT. 15, 2020 & NOV. 10, 2020

Testing Period: SEP. 11 ~ 25, 2020 & OCT. 15 ~ 16, 2020 & NOV. 10 ~ 19, 2020

Note: Retest according to the applicant's request Clause 7.1.2.3 and 7.1.5.2

--- See Next Page ---

**Signed for and on behalf of**
**SGS Taiwan Ltd.**

Justin Yang
Team Leader

Testing site:
61, Kai-Fa Road, Nanzih Export Processing Zone, 81170, Kaohsiung, Taiwan

# TEST REPORT



**Test Method & Result:**

**1. EN 166:2001 / BS EN 166:2002 Personal eye-protection – Specifications Personal eye-protection – Specifications**

| Clause | Result |
|---|---|
| 6 Design and manufacturing requirements | |
| 6.1 General construction | Pass |

**Finding**

All samples were assessed. The samples were free from projections, sharp edges or other defects which are likely to cause discomfort or injury during use.

| | |
|---|---|
| 6.2 Materials | N/E |

No parts of the eye-protector which are in contact with the wearer shall be made of materials which are known to cause any skin irritation.

| | |
|---|---|
| 6.3 Headbands | Pass |
| 7 Basic, particular and optional requirements | |
| 7.1 Basic requirements | |
| 7.1.1 Field of vision | Pass |

**Finding**

Samples 01 to 03 were assessed. The samples exhibited at least the minimum field of vision as defined by the Standard.

--- See Next Page ---

# TEST REPORT



**Test Result**

Clause Result

7.1.2 Optical requirements

7.1.2.1 Spherical, astigmatic and prismatic refractive powers

7.1.2.1.2 Mounted oculars and unmounted oculars covering both eyes Optical Class1

**Finding**

| Sample | Requirement | Optical Class | Spherical Power (D1+D2)/2 $m^{-1}$ | | Astigmatic Power \| D1-D2 \| $m^{-1}$ | |
|---|---|---|---|---|---|---|
| | | 1 | ± 0.06 | | Max. 0.06 | |
| | | | Left Ocular | Right Ocular | Left Ocular | Right Ocular |
| 01 | Test Value | 1 | -0.01 | 0.00 | 0.00 | 0.00 |
| 02 | | | 0.01 | -0.01 | 0.00 | 0.00 |
| 03 | | | -0.01 | 0.00 | 0.00 | 0.00 |

| Sample | Requirement | Optical Class | Difference In Prismatic Power | | |
|---|---|---|---|---|---|
| | | | Horizontal | | Vertical cm/m |
| | | | Base Out cm/m | Base In cm/m | |
| | | 1 | Max. 0.75 | Max. 0.25 | Max. 0.25 |
| 01 | Test Value | 1 | 0.05 | -- | 0.00 |
| 02 | | | 0.05 | -- | 0.00 |
| 03 | | | 0.10 | -- | 0.00 |

--- See Next Page ---

# TEST REPORT



**Test Result**

Clause — Result

7.1.2.2 Transmittance

7.1.2.2.1 Oculars without filtering action — Pass

Finding

| Sample | Requirement | Test Value (%) | |
|---|---|---|---|
| | | Left Ocular | Right Ocular |
| 04 | Luminous Transmittance > 74.4 % | 89.14 | 89.71 |
| 05 | | 89.41 | 89.00 |
| 06 | | 88.63 | 89.22 |

7.1.2.3 Diffusion of light — Pass

**Finding**

| Sample | Requirement | Test Value [(cd/m$^2$)/lx] |
|---|---|---|
| 04L | Reduced Luminance Factor ≦ 0.50 [(cd/m$^2$)/lx] | 0.20 |
| 05R | | 0.23 |
| 06L | | 0.20 |

--- See Next Page ---

# TEST REPORT



**Test Result**

| Clause | Result |
|---|---|
| 7.1.3 Quality of material and surface | Pass |

**Finding**
Samples 01 to 03 were assessed. The samples were free from bubbles, scratches, inclusions, dull spots, pitting, mould marks, notches, reinforced points, specks, beads, water specks, pocking, gas inclusions, splintering, cracks, polishing defects or undulations.

7.1.4.2 Increased robustness
7.1.4.2.2 Complete eye-protectors and frames — Excluded

7.1.5 Resistance to ageing
7.1.5.1 Stability at an elevated temperature — Pass

**Finding**
Samples 01 to 03 were assessed. The samples tested showed no apparent deformation.

7.1.5.2 Resistance to ultraviolet radiation (oculars only) — Pass

**Finding**

| Sample | Requirement | | Test Value (%) |
|---|---|---|---|
| | Luminous Transmittance | Permissible Relative Change | |
| 04L | 17.8 % ~ 100 % | ±5 % | -0.83 |
| 05R | | | -0.60 |
| 06L | | | 0.21 |

**Finding**

| Sample | Requirement | Test Value [(cd/m$^2$)/lx] |
|---|---|---|
| 04L | Reduced Luminance Factor ≦ 0.50 [(cd/m$^2$)/lx] | 0.07 |
| 05R | | 0.12 |
| 06L | | 0.21 |

--- See Next Page ---

# TEST REPORT



**Test Result**

| Clause | Result |
|---|---|
| 7.1.6 Resistance to corrosion | N/A |

**Note.** There's no metal part of the sample.

| | |
|---|---|
| 7.1.7 Resistance to ignition | Pass |

**Finding**

Samples 10 to 12 were assessed. For each of the samples tested, no part of the eye-protectors ignites or continues to glow after removal of the steel rod.

| | |
|---|---|
| 7.2.4 Protection Against Droplets and Splashes of Liquids(3) | Pass |

Eye-protectors for use against droplets (goggles) and splashes of liquids (face-shields) shall be tested in accordance with the methods specified in clause 12 of EN 168:2001.

| | |
|---|---|
| 9.Marking | No Claim |
| 10.Information supplied by the manufacturer | No provided |

--- See Next Page ---

# TEST REPORT



**Test Method & Result**

**2. EN ISO 12312-1:2013+A1:2015 Eye and face protection — Sunglasses and related eyewear — Part 1:Sunglasses for general use**

| Clause | Result |
|---|---|
| 7.3 Impact resistance of the filter, strength level 1 | Pass<br>See Finding |

**Finding**

None of the following defects occurred:

a)it cracks through its entire thickness and across a complete diameter into two or more separate pieces, or

b)a person with a visual acuity of at least 1,0 (6/6 or 20/20) can see, when viewing without magnification but wearing the appropriate correction, if any, for near vision, either a piece of material that has become detached from the filter surface or a corresponding surface defect, or

c)the test ball passes through the filter. This requirement also applies to the filter portions

**Remark:**

1. Samples were provided by applicant and samples were randomly selected to be assessed.
2. Only applicable clauses were shown.
3. N/E = Not Evaluated
4. N/A = Not Applicable
5. The content of this report is invalid if it is not presented as the entire report.
6. The statement of conformity is based on the test results, but does not include the measurement uncertainty.

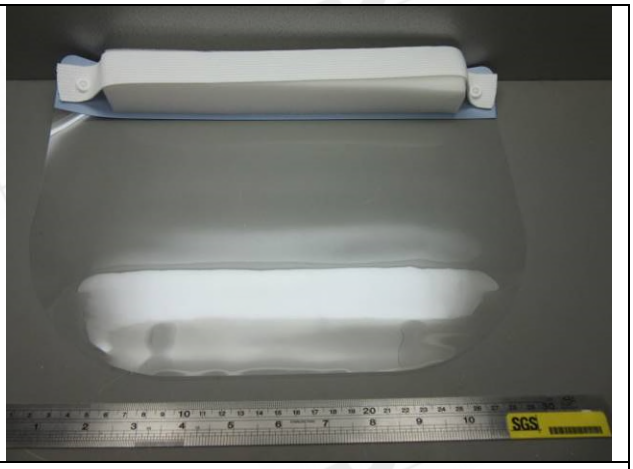
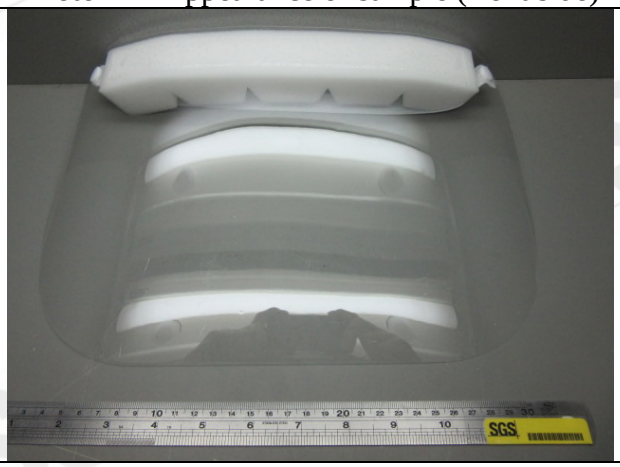
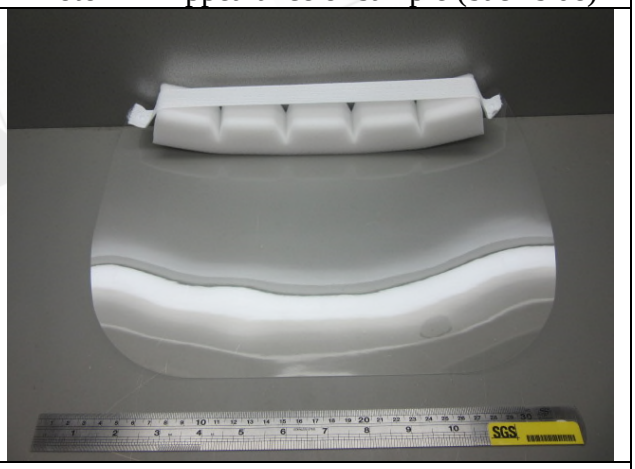
--- See Next Page ---

# TEST REPORT

Hardline Laboratory



**– Picture(s) –**

| | |
|---|---|
|   |  |
| Photo “A” Appearance of sample (front side) | Photo “B” Appearance of sample (back side) |
|  |  |
| Photo “C” Appearance of sample (2020/11/10) | Photo “D” Appearance of sample (2020/11/10) |

--- See Next Page ---

# TEST REPORT

Hardline Laboratory



**Annex**

**Estimates of the uncertainty of measurement at a confidence level of 95 %**

| Clause | | | Uncertainty | Unit |
|---|---|---|---|---|
| 6.3 | Headbands | | 0.4 (Max.) | mm |
| 7.1.2.1 | Spherical and astigmatic refractive power | | 0.01 (Max.) | D |
| | Prismatic refractive power difference | | 0.01 (Max.) | cm/m |
| 7.1.2.2.1<br>7.1.2.2.2<br>7.1.2.2.3<br>7.1.5.2<br>7.2.1 | Transmittance values (%) | from 100 to 17.8 | 0.70 | % |
| | | from 17.8 to 0.44 | 0.25 | |
| 7.1.2.3<br>7.3.1 | Diffusion of light | | 0.0251 | [(cd/m$^2$)/lx] |
| 7.1.2.4 | Polarizing filters | | 0.1 (Max.) | degree |

**Remark:** Values expressed as a percentage (%) are relative.

--- End of Report ---