



**Test Report**

Report No.: PL2008101-1

Page 1 of 7

**Applicant:** JIEYANG JIA YI PLASTIC PRODUCTS CO.LTD  
**Address of Applicant:** EASTERN SIDE OF PANLONG CUN LONGSHAN ROAD TAIL SECTION, JIEDONG DEVELOPMENT ZONE JIEYANG CITY

**Date of Receiving Samples:** Aug 08, 2020

**Testing Period:** Aug 09, 2020 to Aug 14, 2020

**Description of Samples**

The submitted sample and sample information was/were submitted and identified by/on behalf of client.

**Sample Name:** Face shields  
**Device Type:**  Spectacles  Goggles  Face Shields  
**Model No.:** JY2020216  
**Quantity:** 9 Pairs  
**Material:** Plastic  
**Scale No.:** Not provided  
**Frame Color:** Transparent  
**Lenses Color:** Transparent  
**P.O. No.:** Not provided  
**Supplier / Brand:** Not provided  
**Buyer:** Not provided  
**Goods exported to:** Not provided  
**Country of Origin:** China

**Tests Conducted:** As requested by the applicant, refer to attached page(s) for details.

Issued by stamp

Date of Issued: Aug 18, 2020

For and on behalf of:

Shenzhen Precision Eyewear  
Testing & Inspection Services Co., Ltd.

Manager: WenHua Li



## Test Report

Report No.: PL2008101-1

Page 2 of 7

**Sample Photo:**



\*\*\*\*\*

**Conclusion:**

| <u>Tested Samples</u> | <u>Required Standard(s)</u>   | <u>Results</u>   |
|-----------------------|---|--|
| Submitted Samples     | EN 166: 2001 Personal eye - protection – Specifications, only test the related parameters, please refer to “Tests Conducted Summary” for details. | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail |

\*\*\*\*\*



## Test Report

Report No.: PL2008101-1

Page 3 of 7

### Tests Conducted Summary

#### 1. Test standards

- EN 166: 2001 Personal eye - protection – Specifications
- EN 167: 2001 Personal eye- protection – Optical test methods
- EN 168: 2001 Personal eye-protection - Non-optical test methods

**Note:** The applicant's attention was drawn that the manufacturer should not use the frame materials which are known to cause irritation, allergic or toxic reaction during wear in a normal state of health against significant proportion of users.

| Requirement   |                                    | Testing      |             |              |        | Results <sup>1</sup> |
|---|------------------------------------|--------------|-------------|--------------|--------|----------------------|
|   |                                    | According to |             | According to |        |                      |
| Test Items  |                                    | EN           | Clause      | EN           | Clause |                      |
| General construction  |                                    | 166          | 6.1         | --           | --     | P                    |
| Materials (Nickel release)  |                                    | 166          | 6.2         | --           | --     | NA                   |
| Headbands   |                                    | 166          | 6.3         | --           | --     | NA                   |
| Field of vision   |                                    | 166          | 7.1.1       | 168          | 18     | P                    |
| Refractive powers<br>(Unmounted oculars<br>covering one eye)                      | Spherical refractive powers        | 166          | 7.1.2.1.1   | 167          | 3.1    | NA                   |
|   | Astigmatic refractive powers       |              |             |              |        |                      |
|   | Prismatic refractive powers        |              |             |              |        |                      |
| Refractive powers<br>(Mounted oculars and<br>covering both eyes)                  | Spherical refractive powers        | 166          | 7.1.2.1.2   | 167          | 3.2    | Optical Class 1      |
|   | Astigmatic refractive powers       |              |             |              |        |                      |
|   | Prismatic refractive powers        |              |             |              |        |                      |
| Transmittance   | Oculars without filtering action   | 166          | 7.1.2.2.1   | 167          | 6      | P                    |
|   | Oculars with filtering action      | 166          | 7.1.2.2.2   | 167          | 6      | NA                   |
|   | Ultraviolet Filter                 | 170          | 4           | 167          | 6      | NA                   |
|   | Sunglare Filter for Industrial Use | 172          | 4.1         | 167          | 6      | NA                   |
| Variations in<br>transmittance<br>(Exempt oculars<br>without filtering<br>action) | Oculars without corrective effect  | 166          | 7.1.2.2.3.1 | 167          | 7      | NA                   |
|   | Oculars with corrective effect     | 166          | 7.1.2.2.3.2 | 167          | 7      | NA                   |

## Test Report

Report No.: PL2008101-1

Page 4 of 7

### Tests Conducted Summary

| Requirement  |                                   | Testing             |           |              |          | Results          |
|--|-----------------------------------|---------------------|-----------|--------------|----------|------------------|
|  |                                   | According to Clause |           | According to |          |                  |
|  |                                   | EN                  | Clause    | EN           | Clause   |                  |
| Diffusion of light   |                                   | 166                 | 7.1.2.3   | 167          | 4        | NR               |
| Quality of material and surface  |                                   | 166                 | 7.1.3     | 167          | 5        | P                |
| Minimum robustness <sup>2</sup>  |                                   | 166                 | 7.1.4.1   | 168          | 4        | NA               |
| Increased robustness   | Unmounted oculars                 | 166                 | 7.1.4.2.1 | 168          | 3.1      | NA               |
|  | Complete eye-protectors and frame | 166                 | 7.1.4.2.2 | 168          | 3.2      | NR               |
| Stability at an elevated temperature   |                                   | 166                 | 7.1.5.1   | 168          | 5        | P                |
| Resistance to ultraviolet radiation (oculars only)<br>(excluding diffusion of light) |                                   | 166                 | 7.1.5.2   | 168          | 6        | P                |
| Resistance to corrosion (All metal parts only)                                       |                                   | 166                 | 7.1.6     | 168          | 8        | NA               |
| Resistance to ignition   |                                   | 166                 | 7.1.7     | 168          | 7        | P                |
| Protection against high-speed particles  |                                   | 166                 | 7.2.2     | 168          | 9        | NA<br>(NO CLAIM) |
| Protection against chemical droplets of liquids                                      | For Goggles                       | 166                 | 7.2.4     | 168          | 12       | NA               |
|  | For face-shields                  |                     |           | 168          | 10.2, 12 | NR               |
| Lateral protection   |                                   | 166                 | 7.2.8     | 168          | 19       | NA               |
| Resistance to fogging of oculars   |                                   | 166                 | 7.3.2     | 168          | 16       | NA               |
| Information supplied by the manufacturer   |                                   | 166                 | 10        | --           | --       | NR               |

Remarks: 1. P = Pass; F = Fail; NA = Not Applicable; NR= Not require; X=Checked.

2. This requirement relates only to cover plates and oculars with filtering effect and not be assessed if these Items are intended to meet the requirements for increased robustness or resistance to high speed particles, in which case the requirements of 7.1.4.2 or 7.2.2 shall be met.

## Test Report

Report No.: PL2008101-1

Page 5 of 7

### Test Result

#### General construction—Clause 6.1/ Headbands – Clause 6.3

| Sample No.  | General construction |        | Headbands    |            | Comment | Result(s) |
|---|----------------------|--------|--------------|------------|---------|-----------|
|   | Defects              |        | Width(mm)    | Adjustable |         |           |
|   | Observed             | Absent | No headbands |            |         |           |
| 2008101-(01~03)   |                      | X      |              |            | --      | P         |
| Requirements:<br>1. General construction: Eye-Protectors shall be free of projections, sharp edges or other defects which are likely to cause discomfort or injury during use.<br>2. Headbands: shall be at least 10mm wide over any portion which may come into contact with the wearer's head, and shall be adjustable or self-adjusting; |                      |        |              |            |         |           |

#### Field of vision—Clause 7.1.1 / EN 168:2001 Clause 18

| Sample No.  | Head-form |       | Exhibit minimum field of vision defined in the standard |    | Comment | Result(s) |
|---|-----------|-------|---|----|---------|-----------|
|   | Medium    | Small | Yes   | No |         |           |
| 2008101-(01~03)   | X         |       | X   |    | --      | P         |
| Requirements:<br>Eye-Protectors shall be exhibit field of vision an area of not less than 22 mm in the horizontal length and 20mm in the vertical width in front of each eye. |           |       |   |    |         |           |

#### Refractive powers—Clause 7.1.2.1 .2 / EN 167:2001 Clause 3.2

| Sample No.  | Refractive powers           |       |                              |       | Difference in prismatic refractive powers(cm/m) |         |          | Result(s)       |
|---|-----------------------------|-------|------------------------------|-------|---|---------|----------|-----------------|
|   | Spherical(m <sup>-1</sup> ) |       | Astigmatic(m <sup>-1</sup> ) |       | Horizontal                                      |         | Vertical |                 |
|   | Left                        | Right | Left                         | Right | Base Out  | Base In |          |                 |
| 2008101-01  | 0.00                        | 0.00  | 0.00                         | 0.00  | 0.20  | --      | 0.05     | Optical class 1 |
| 2008101-02  | 0.00                        | 0.00  | 0.00                         | 0.00  | 0.18  | --      | 0.05     |                 |
| 2008101-03  | 0.00                        | 0.00  | 0.00                         | 0.00  | 0.20  | --      | 0.05     |                 |
| Requirement: Permissible tolerances for refractive powers : |                             |       |                              |       |   |         |          |                 |
| Optical class 1   | ±0.06                       |       | 0.06                         |       | 0.75  | 0.25    | 0.25     |                 |
| Optical class 2   | ±0.12                       |       | 0.12                         |       | 1.00  | 0.25    | 0.25     |                 |
| Optical class 3   | +0.12~ -0.25                |       | 0.25                         |       | 1.00  | 0.25    | 0.25     |                 |

Measurement Uncertainty (if necessary):

## Test Report

Report No.: PL2008101-1

Page 6 of 7

### Test Result

#### Transmittance (without filtering action)—Clause 7.1.2.2/EN 167:2001 Clause 6

| Sample No. | Requirements   | Luminous Transmittance, $T_v$ (%) |       | Result(s) |
|------------|----------------|-----------------------------------|-------|-----------|
|            |                | Left                              | Right |           |
| 2008101-01 | $T_v > 74.4\%$ | 89.7                              | 89.4  | P         |
| 2008101-02 |                | 89.8                              | 89.5  | P         |
| 2008101-03 |                | 89.0                              | 89.0  | P         |

Measurement Uncertainty (if necessary):

#### Quality of material and surface—Clause 7.1.3 /EN 167:2001 Clause 5

| Sample No.      | Defects  |        | Comment | Result(s) |
|-----------------|----------|--------|---------|-----------|
|                 | Observed | Absent |         |           |
| 2008101-(01~03) |          | X      | --      | P         |

Requirements:  
Except in a marginal area 5 mm wide, oculars shall be free from any significant defects likely to impair vision in use, such as bubbles, scratches, inclusions, dull spots, pitting, mould marks, scouring, grains, pocking, scaling and undulation.

#### Stability at an elevated temperature —Clause 7.1.5.1 /EN 168:2001 Clause 5

| Sample No.      | Apparent deformation |        | Comment | Result(s) |
|-----------------|----------------------|--------|---------|-----------|
|                 | Observed             | Absent |         |           |
| 2008101-(04~06) |                      | X      | --      | P         |

Requirements:  
Assembled eye-protectors shall show no apparent deformation;



## Test Report

Report No.: PL2008101-1

Page 7 of 7

### Test Results

#### Resistance to ultraviolet radiation (oculars only) —Clause 7.1.5.2 /EN 168:2001 Clause 6

| Samples type                                      |               | Sample No.                      |                                       |  |       |            |       |
|---|---------------|---------------------------------|---------------------------------------|--|-------|------------|-------|
| Other oculars                                     |               | 2008101-01                      |                                       | 2008101-02   |       | 2008101-03 |       |
| Test Items  |               | Left                            | Right                                 | Left   | Right | Left       | Right |
| The relative change of luminous transmittance (%) | Before Expose | 89.7                            | 89.4                                  | 89.8   | 89.5  | 89.0       | 89.0  |
|   | After Expose  | 89.5                            | 89.3                                  | 89.5   | 89.1  | 89.2       | 89.2  |
|   | Difference    | -0.2                            | -0.1                                  | -0.3   | -0.4  | 0.2        | 0.2   |
| Result(s)   |               | P                               |                                       | P  |       | P          |       |
| Requirements:                                     |               |                                 |                                       |  |       |            |       |
| 1. The relative change of luminous transmittance  |               |                                 | 2.Reduced scattered light coefficient |  |       |            |       |
| Luminous transmittance                            |               | Permissible relative Change (%) |                                       | The maximum value of the reduced luminance factor shall be:                                      |       |            |       |
| Less than (%)                                     | Up to (%)     |                                 |                                       | - 1.00(cd/m <sup>2</sup> ) / lx for welding filter;  |       |            |       |
| 100   | 17.8          | ± 5                             |                                       | - 0.75(cd/m <sup>2</sup> ) / lx for oculars used in eye-protectors against high speed particles; |       |            |       |
| 17.8  | 0.44          | ± 10                            |                                       | - 0.50 (cd/m <sup>2</sup> ) / lx for all other oculars;  |       |            |       |

Measurement Uncertainty (if necessary):

#### Resistance to ignition—Clause 7.1.7 /EN 168:2001 Clause 7

| Sample No.   | Continued combustion |    | Comment | Result(s) |
|--|----------------------|----|---------|-----------|
|  | Yes                  | No |         |           |
| 2008101-(04~06)  |                      | X  | --      | P         |
| Requirements:  |                      |    |         |           |
| Eye-protectors shall be considered to be satisfactory if no parts ignites or continues to glow after removal of the steel rod. |                      |    |         |           |

-----Report End-----

The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of PEL (Precision Eyewear Testing & Inspection Co., Ltd.), this report can't be reproduced except in full.