

## TEST REPORT

Hardline Laboratory

Report No. : YA70047/2021

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Date : JUL. 30, 2021

### **Bor Jye Enterprise Co., Ltd.**

No.36 Lane 482 Sec. 1 Benyuant St., Annan Dist.,  
709037 Tainan.

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

Product Description: Safety Glasses  
Style/Item No.: J-173  
Manufacturer/Vendor: Bor Jye Enterprise Co., Ltd.  
Country of Origin: Taiwan

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

Test Requested: ANSI/ISEA Z87.1-2020 American National Standard for Occupational and Educational Personal Eye and Face Protection Devices

Optional Requirements: 7.1 Impact Protector Requirements(+)

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

Date of Receipt: JUL. 15, 2021

Testing Period: JUL. 15 ~ 29, 2021

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Testing site:  
No. 61, Kai Fa Road, Nanzih District, Kaohsiung City, Taiwan

Signed for and on behalf of  
SGS Taiwan Ltd.

  
Justin Yang  
Asst. Supervisor



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### **Test Method & Result**

**ANSI/ISEA Z87.1-2020 American National Standard for Occupational and Educational Personal Eye and Face Protection Devices**

#### Section

5. General Requirements

5.1 Optical Requirements

5.1.1 Optical Quality

Result

Pass

5.1.2 Luminous Transmittance

Pass

#### **Finding**

Lens Type	Luminous Transmittance Requirement	Test Value	
		Left Ocular	Right Ocular
Clear Lenses	85% min.	92.83 %	91.99 %

5.1.3 Haze

Pass

#### **Finding**

Lens Type	Haze Requirement	Test Value	
		Left Ocular	Right Ocular
Clear Lenses	3% max. – Clear Lenses Only	0.3 %	1.9 %

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### Test Result

#### Section

5.1.4 Refractive Power, Astigmatism, Resolving Power, Prism and Prism Imbalance for Plano Protectors

Result

Pass

### Finding

Test/Property	Requirement	Test Value	
		Left Ocular	Right Ocular
Refractive Power	See Table 1	0.00	0.00
Astigmatism		0.05	0.05
Resolving Power		Pattern 20	Pattern 20
Prism	See Table 2	< 0.25 Δ	< 0.25 Δ
Vertical Prism Imbalance		0.00 Δ	
Horizontal Prism Imbalance		0.00 Δ (Base Out)	

**Table 1.** Tolerance on Refractive Power, Astigmatism and Resolving Power - Standard Optics

Protector	Refractive Power	Astigmatism	Resolving Power
Spectacle, Reader	±0.06 D	≤0.06 D	Pattern 20
Goggle, Full-facepiece respirator	±0.06 D	≤0.06 D	Pattern 20
Faceshield windows, Loose-fitting respirator	No requirement	No requirement	Pattern 20
Welding helmet lenses	±0.06 D	≤0.06 D	Pattern 20

**Table 2.** Tolerance on Prism and Prism Imbalance

Protector	Prism	Vertical Imbalance	Base In Imbalance	Base Out Imbalance
Spectacle, Reader	≤0.50 Δ	≤0.25 Δ	≤0.25 Δ	≤0.50 Δ
Goggle, Full-facepiece respirator	≤0.25 Δ	≤0.125 Δ	≤0.125 Δ	≤0.50 Δ
Faceshield windows, Loose-fitting respirator	≤0.37 Δ	≤0.37 Δ	≤0.125 Δ	≤0.75 Δ
Welding helmet lenses	≤0.50 Δ	≤0.25 Δ	≤0.25 Δ	≤0.75 Δ

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### Test Result

#### Section

5.1.5 Refractive Power, Astigmatism, Prism and Prism Imbalance for Prescription Protectors and Magnifiers Result  
N/A

5.2 Physical Requirements Pass

5.2.1 Drop Ball Impact Resistance N/A

**Note:** Protectors first tested to and meeting the requirements of Section 6.2 are exempt from drop ball impact testing.

5.2.2 Ignition Pass

5.2.3 Corrosion Resistance of Metal Components Pass

5.2.4 Minimum Coverage Area Pass

5.3 Markings See  
Finding

Protector markings shall be placed in relatable proximity to each other on the product in the sequence specified below:

- Manufacturer's marks or logos
- Designation of standard (Z87 or Z87-2, for prescription devices)
- Coverage
- Optical level
- Optional Hazard-Specific Marks, as applicable:
  - Impact-rated marking (+)
  - Optical radiation marking
  - droplet and splash marking
  - dust marking
  - fine dust marking
- Optional Design Marks, as applicable:
  - Anti-fog treatment

### **Finding**

	Manufacturer's marks or logo	Standard	Impact Mark	Relaxed Optical Level	Lens Type	Use
<b>Lens</b>	<u>No Claim</u>					
<b>Frame</b>						

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### Test Result

#### Section

7 Optional Hazard-Specific Protector Requirements

7.1 Impact Protector Requirements

7.1.3 Lateral (Side) Coverage

Result

Pass

7.1.4 Impact Requirements

7.1.4.1 Protector Acceptance Criteria

7.1.4.2 High Mass Impact

Pass

#### Finding

Determined	Remark
4 out of 4 Passed	The complete devices met the protector acceptance criteria listed in Section 9.11 after testing.

7.1.4.3 High Velocity Impact

Pass

#### Finding

Determined	Remark
6 out of 6 Passed	The complete devices met the protector acceptance criteria listed in Section 9.12 after testing.

**Note.** 1. Impact ball: 6.00 mm (0.24 in.) diameter steel ball

2. Impact speed: Spectacles: 50.9 m/s.

7.1.4.4 Penetration Test (lenses only)

Pass

#### Finding

Determined	Remark
4 out of 4 Passed	The complete devices met the protector acceptance criteria listed in Section 9.13 after testing.

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### Test Result

#### Section

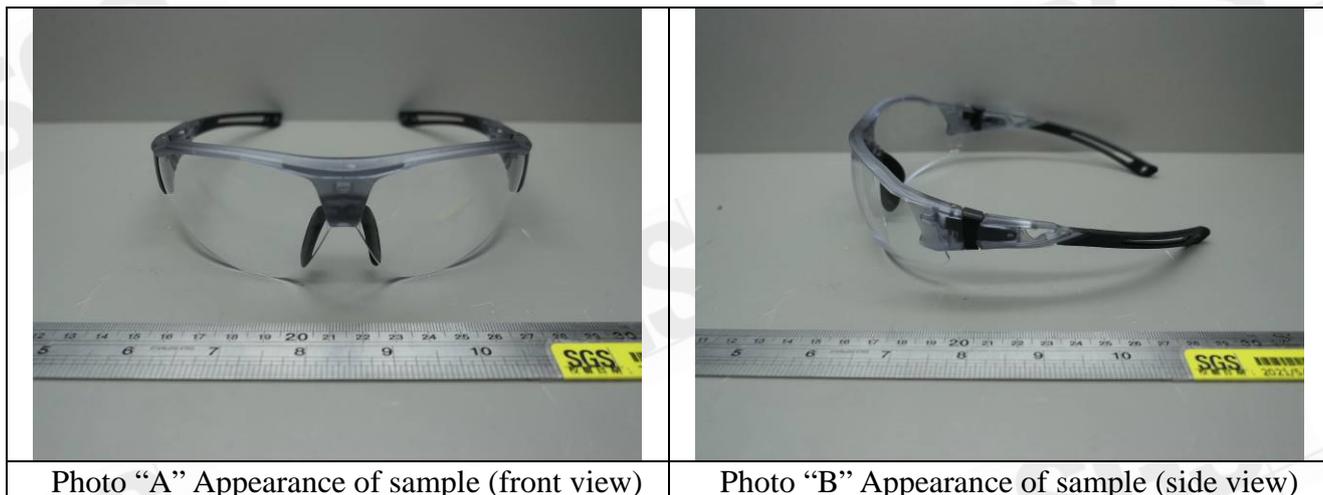
7.2 Optical Radiation Protector Requirements

Result  
N/A

#### Remark:

1. The samples are complete devices claimed by applicant.
2. Samples were provided by applicant and samples were randomly selected to be assessed.
3. N/A = Not Applicable
4. Only applicable sections were shown.
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.

#### – Picture(s) –



--- End of Report ---