TEST REPORT

Hardline Laboratory

Report No.： YA70047/2021
Page： 1 of 6
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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Signed for and on behalf of
SGS Taiwan Ltd.

Justin Yang
Asst. Supervisor

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

Test Method &Result

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

Section	Result
5. General Requirements	
5.1 Optical Requirements	
5.1.1 Optical Quality	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	Result
5.1.4 Refractive Power, Astigmatism, Resolving Power, Prism and Prism Imbalance for Plano Protectors	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	Result
5.1.5 Refractive Power, Astigmatism, Prism and Prism Imbalance for Prescription Protectors and Magnifiers	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
Lens	No Claim					
Frame						

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Test Result

Section	Result
7 Optional Hazard-Specific Protector Requirements	
7.1 Impact Protector Requirements	
7.1.3 Lateral (Side) Coverage	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	Result
7.2 Optical Radiation Protector Requirements	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) –

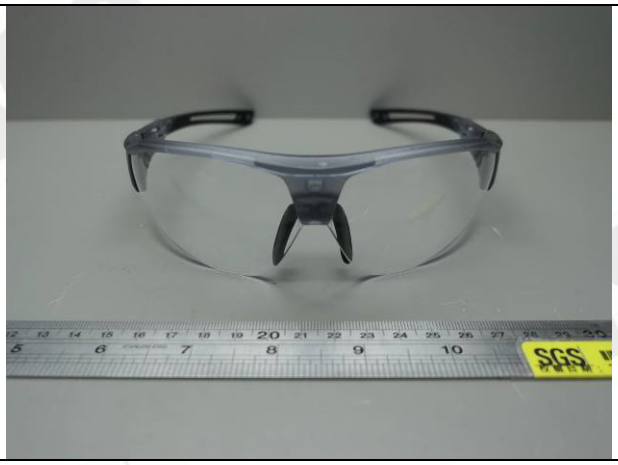	
Photo “A” Appearance of sample (front view)	Photo “B” Appearance of sample (side view)

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