



## **TEST REPORT:**

Report of Testing of  
Spectacle Model WorkSafe Vector

### **REPORT TO:**

PDS International, Pte Ltd  
10 Pandan Crescent, #05-03/04 (LL2)  
Singapore 128466

### **ATTENTION:**

Mr. Marvin Wan

### **REPORT DATE:**

January 28, 2020

**REPORT TO:** PDS International, Pte Ltd  
10 Pandan Crescent,  
#05-03/04 (LL2)  
Singapore 128466

**PROJECT:** Testing of Spectacle  
Model WorkSafe  
Vector

**ATTENTION:** Mr. Marvin Wan

**PSI PROJECT NO.:** 0823757-1

**DATE:** January 28, 2020

**PSI LAB NO.:** SPT-00008

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On January 22, 2020, Professional Service Industries, Inc. (PSI) received twenty-five (25) spectacles identified as Model WorkSafe Vector. On January 27, 2020, PSI tested these spectacles in general accordance with the ANSI Z87.1-2015 standard.

Our services for this project were performed in accordance with PSI Proposal No. 823-0053, dated January 9, 2020. The proposal included a proposed scope of services, estimated costs, unit rates, and PSI's General Conditions. Authorization to perform this project was in the form of signed acceptance of the proposal, acknowledged January 7, 2020.

The results contained in this report are related only to the item(s) tested. The pages of this report (including attachments) shall not be reproduced, except in full, without written approval of PSI. All testing was conducted by and under the continuous, direct supervision of Professional Service Industries, Inc.

**Spectacle Description:** The Model WorkSafe Vector Spectacle is an impact rated spectacle with a two piece clear plano, non-removable lens with a one piece frame with angle adjustable temples. Lenses can be exchanged for prescription lenses, plain lenses used for testing purposes.

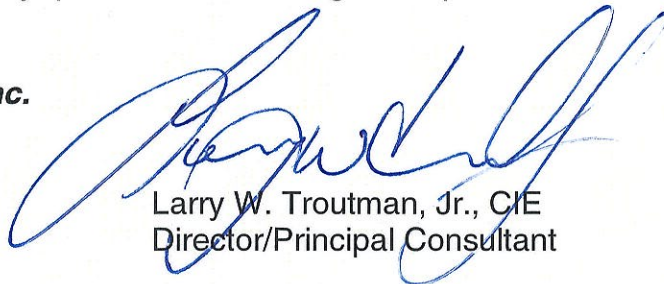
**Final Conclusion:** The PDS International, Pte Ltd Model WorkSafe Vector spectacle **Does Comply** with the ANSI Z87.1-2015 standard.

Please contact us should you have any questions concerning this report.

Respectfully submitted,  
Professional Service Industries, Inc.



Denis J. Columbare  
Technician, Special Test



Larry W. Troutman, Jr., CIE  
Director/Principal Consultant





**REPORT OF SPECTACLE TESTING - GENERAL REQUIREMENTS**

Test/Property	ANSI Z87.1 Paragraph	Location	ANSI Z87.1-2015 Requirement	Test Results	Acceptance
Optical Quality	5.1.1/9.1.2		Free of visible defects	Acceptable	Pass
Transmittance, Luminous	5.1.2/9.2.2		85% Minimum (Clear lenses only)	92.7%	Pass
Haze	5.1.3/9.3.2		3% max. (Clear lenses only)	0.43%	Pass
Refractive Power	5.1.4/9.4.3		± 0.06D	0.055 D	Pass
Astigmatism	5.1.4/9.4.3		≤ 0.06D max.	0.050 D	Pass
Resolving Power	5.1.4/9.4.4		Pattern 20 min.	Pattern 24	Pass
Prismatic Power	5.1.4/9.5.3		≤ 0.50 Δ	0.125 Δ	Pass
Vertical Prism Imbalance	5.1.4/9.5.3		≤ 0.25 Δ	0.125 Δ	Pass
Horizontal Prism Imbalance	5.1.4/9.5.3		≤ 0.25 Δ Base In ≤ 0.50 Δ Base Out	0.063 Δ Base In	Pass
Drop ball impact	5.2.1/9.6.2		No fracture	Acceptable	Pass
Ignition	5.2.2/9.7.3		Shall not ignite or continue to glow	Acceptable	Pass
Corrosion resistance	5.2.3/9.8.3		Function not impaired	Acceptable	Pass
Minimum Coverage Area	5.2.4	Left, Right	40 mm min. width, 33 mm min. height	Acceptable	Pass
Minimum lens thickness	5.4.4		No minimum requirement for impact rated spectacles – or - ≥ 3.0 mm	-----	-----
Marking	5.3/ Table 3	Frame Front = WZ87-2+ Temples = WZ87-2+ Left Lens = W+U6 Right Lens = W+U6 Scale = U6	Manufacturer and specification compliance	Acceptable	Pass
Transmittance Requirements for UV Filter Lenses	Table 7		Max Far UV = 0.01% Max Near UV = 0.1%	Far = 0.0073 % Near = 0.065%	Pass Pass



**REPORT OF SPECTACLE TESTING  
 IMPACT PROTECTOR REQUIREMENTS**

Test/Property	ANSI Z87.1 Paragraph	Location	ANSI Z87.1-2015 Requirement	Test Results	Acceptance
Lateral Coverage	6.1.3/9.10.3		Continuous lateral coverage from the vertical plane/10 mm posterior/high/low	Acceptable	Pass
High mass impact	6.2.2/9.11.3	Left 1	No piece fully detached from inner surface, no penetration of rear surface, lens retained.	Acceptable	Pass
		Left 2		Acceptable	Pass
		Right 1		Acceptable	Pass
		Right 2		Acceptable	Pass
High velocity impact	6.2.3/9.12.3	Left 90°	No piece fully detached from inner surface, no penetration of rear surface, lens retained. No contact paste on projectile or device.	Acceptable	Pass
		30°		Acceptable	Pass
		90° 10 mm high		Acceptable	Pass
		Right 90°		Acceptable	Pass
		30°		Acceptable	Pass
		90° 10 mm low		Acceptable	Pass
Penetration	6.2.4/9.13.3		No fracture, no penetration of rear surface, lens retained	Acceptable	Pass

