



Test Report: WND-02636, Issue: 1

ANSI Z87.1-2020

Wendy's Pancake Welding Shields

Z - Model

May 01, 2025



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- e. Decision Rule – COLTS makes all statements of conformity (pass/fail) based on actual values reported, unless otherwise stated.

Authorized By:

A handwritten signature in black ink, appearing to read 'Jacob Gary', written in a cursive style.

Jacob Gary  
Director of Operations

Reviewed By:

A handwritten signature in black ink, appearing to read 'Jason Fawell', written in a cursive style.

Jason Fawell  
Technical Engineer

Requested by: David Keup

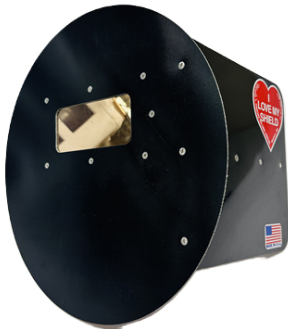
## Report Summary

**Product Description:** Z - Model: Black Front and Side Piece, 5/8" Lens Holder Wooden Lens Holder/Face Piece  
**Date Received:** April 10, 2025  
**Date(s) Tested:** April 21, 2025 to May 01, 2025  
**Standard:** ANSI Z87.1-2020  
**Laboratory Conditions:** 25°C, 47% RH

### Final Conclusion:

The Welding Helmet Sample: Class 3 Z - Model (Black Front and Side Piece, 5/8" Lens Holder Wooden Lens Holder/Face Piece) **does** comply with ANSI Z87.1-2020 for the test(s) included in this report.

Test Name	Result
<b>ANSI Z87.1-2020 Welding Helmet Shell Requirements</b>	
5.2 Physical Requirements	Pass
5.2.2 Ignition	Pass
5.2.3 Corrosion Resistance of Metal Components	Pass
5.2.4 Minimum Coverage Area	Pass
5.3.1 Required Protector Markings	Pass
5.3.2 Placement of Markings	Pass
5.4.3.2 Information provided with Welding Protectors	Pass
7.2.2.2 Transmittance of Non-Lens Components (Welding Helmets)	Pass
<b>ANSI Z87.1-2020 Optional Claim (+)</b>	
7.1.3 Lateral (Side) Coverage	Pass
7.1.4.2 High Mass Impact	Pass
7.1.4.3 High Velocity Impact	Pass
7.1.4.4 Penetration Test (lenses only)	Pass



Requested by: David Keup

**Test Results - WND-02636-01/Z - Model Black Front and Side Piece, 5/8" Lens Holder Wooden Lens Holder/Face Piece  
 ANSI Z87.1-2020 Welding Helmet Shell Requirements**

**5.2 Physical Requirements**

Test	Specification	Pass
Free of defects which may cause discomfort or injury		Pass

**5.2.2 Ignition**

Test	Specification	Pass
Shell		Pass
Lens/Safety Plate		Pass
Headgear/Adapter		Pass
Lens Housing		Pass
Other		N/A

**5.2.3 Corrosion Resistance of Metal Components**

Test	Specification	Pass
Function of protector not impaired		Pass

**5.2.4 Minimum Coverage Area**

Test	Specification	Pass
40 x 33 mm (34 x 28 mm - H)		Pass

**5.3.1 Required Protector Markings**

Test	Specification	Pass
Markings		Pass

**5.3.2 Placement of Markings**

Test	Specification	Pass
Markings		Pass

**5.4.3.2 Information provided with Welding Protectors**

Test	Specification	Pass
List of lens and retention components		Pass
Suspension Type		NA
Information to allow correct installation		Pass
Statement regarding protection		Pass
Nominal thickness of cover lenses		Pass

**7.2.2.2 Transmittance of Non-Lens Components (Welding Helmets)**

Test	Specification	Pass
Light Penetration		Pass
Non-lens area		Pass
Near UV		0.0000010 (%)

Issued to: Wendy's Pancake Welding Shields  
500 Countryside Place  
Madison, MS 39110



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**Test Results - WND-02636-01/Z - Model Black Front and Side Piece, 5/8" Lens Holder Wooden Lens Holder/Face Piece**

Far UV		0.0000000 (%)
Luminous		0.0000210 (%)
Infrared		0.0033860 (%)
Blue Light		0.0000260 (%)

Requested by: David Keup

**Test Results - WND-02636-01/Z - Model Black Front and Side Piece, 5/8" Lens Holder Wooden Lens Holder/Face Piece**

**ANSI Z87.1-2020 Optional Claim (+)**

**7.1.3 Lateral (Side) Coverage**

Test	Specification	Pass
Lateral (Side) Coverage		Pass

**7.1.4.2 High Mass Impact**

Test	Specification	Pass
Left Eye Sample 1		Pass
Left Eye Sample 2		Pass
Right Eye Sample 3		Pass
Right Eye Sample 4		Pass

**7.1.4.3 High Velocity Impact**

Test	Specification	Pass
Left Eye Center	Min: 150.00	150 (fps)
Left Eye Center		Pass
Left Eye 30°	Min: 150.00	152 (fps)
Left Eye 30°		Pass
Right Eye Center	Min: 150.00	152 (fps)
Right Eye Center		Pass
Right Eye 30°	Min: 150.00	152 (fps)
Right Eye 30°		Pass
One Side 90° at 10mm Above (H - 8mm)	Min: 150.00	154 (fps)
One Side 90° at 10mm Above (H - 8mm)		Pass
Opposite Side 90° at 10mm Below (H - 8mm)	Min: 150.00	153 (fps)
Opposite Side 90° at 10mm Below (H - 8mm)		Pass

**7.1.4.4 Penetration Test (lenses only)**

Test	Specification	Pass
Left Eye Sample 1		Pass
Left Eye Sample 2		Pass
Right Eye Sample 3		Pass
Right Eye Sample 4		Pass

## APPENDIX 1

### ANSI Z87.1 - 2020 Measurement Uncertainty Values

Section	Requirement	Uncertainty
5.1.2	Luminous Transmittance	0.19%
5.1.3	Haze	0.08%
5.1.4	Refractive Power	0.018D
	Astigmatism	0.018D
	Prism	0.048Δ
5.4.5	Minimum Lens Thickness	0.012 mm
5.5.1	Replaceable Lenses – Goggles	0.17 mm
5.5.2	Replaceable Lenses – Welding Helmets and Handshields	0.17 mm
6.1	Relaxed Optics Level	See 5.1.4
6.2	Anti-Fog Properties	1.79%
7.2.1	Optical Radiation - Clear Lenses	See 5.1.2
7.2.2.1.1	Transmission Requirements	
	Table 7 (Welding Filters)	
	W1.3 – W3.0	See 5.1.2
	W4	0.0018287%
	W5	0.0003283%
	W6	0.0003605%
	W7	0.0000961%
	W8	0.0001944%
	W9	0.0000459%
	W10	0.0000707%
	W11	0.0000163%
	W12	0.0000055%
	W13	0.0000029%
	W14	0.0000017%
	EFUV	0.0000551%
	NUV	0.0000576%
	IR	0.010395%
	Table 8 (UV Filters)	
	EFUV	0.0000551%
	NUV	0.0000576%
	Table 9 (IR Filters)	0.010395%
	Table 10 (VIS Filters)	See 7.2.2.1.1 W1.3 – W10
	Table 11 Tinted	See 5.1.2
	Extra Dark	See 5.1.2
7.2.2.1.2	Visible Light Filters	
	Visible Light (L1.3 - L3)	See 5.1.2
	UVA	See Table 7 NUV
	UVB	See Table 7 EFUV
7.2.2.2	Transmittance of Non-lens Components	See 7.2.2.1.1 Table 7, 8 & 9
7.2.3.1	Automatic Darkening Welding Filter Lenses - Luminous Transmittance	See 7.2.2.1.1 Table 7
7.2.3.2	Automatic Darkening Welding Filter Lenses - UV/IR Transmittance	See 7.2.2.1.1 Table 7
7.2.3.3	Switching Index	0.0192 mSec
7.2.3.5	Angular dependence of luminous transmittance	See 7.2.2.1.1 Table 7