

TEST RESULTS and REPORT

**for
LIBUS PPE**

BURBUJA

by



COLTS | Laboratories™

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Also Certified for testing by the Safety Equipment Institute and CSA International

Z-LIB011515-06

- Results in this report only relate to the samples analyzed.
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- Unless otherwise requested, test samples will be discarded 21 days from the report date.

COLTS Laboratories

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**PRODUCT
RESULTS
SUMMARY**

A2LA Accredited Certificate # 1612.01

**LIBUS PPE
Z-LIB011515-06**

Project ID	Test/Models(s)	Results Pass / Fail	Reason	Page
Z-LIB011515-06-01	ANSI Z87.1-2010 Faceshields - Base Model	Pass		1
	BURBUJA 901386 - Clear Window with Orange Crown and Black Headgear			
Z-LIB011515-06-02	ANSI Z87.1-2010 Faceshields - Window Variant	Pass		7
	BURBUJA 902439 - Dark Green (W3) Window with Orange Crown and Black Headgear			
Z-LIB011515-06-03	ANSI Z87.1-2010 Optional Transmittance Attributes (W)	Pass		12
	BURBUJA 902439 - Dark Green (W3) Window with Orange Crown and Black Headgear			
Z-LIB011515-06-04	ANSI Z87.1-2010 Faceshields - Window Variant	Pass		15
	BURBUJA 902440 - Dark Green (W5) Window with Orange Crown and Black Headgear			
Z-LIB011515-06-05	ANSI Z87.1-2010 Optional Transmittance Attributes (W)	Pass		20
	BURBUJA 902440 - Dark Green (W5) Window with Orange Crown and Black Headgear			
Z-LIB011515-06-06	ANSI Z87.1-2010 Faceshields - Droplet and Splash Hazard	Pass		23
	BURBUJA 902440 - Dark Green (W5) Window with Orange Crown and Black Headgear			

Report Date: 02/27/2015

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**Report
Summary**

A2LA Accredited Certificate # 1612.01

Report To:

LIBUS PPE
Calle 21 Nro. 1213
Berazategui, Bs.As.

Attn: Miguel Caro

Date: February 27, 2015

Product Description: 901386 - Clear Window with Orange Crown and Black Headgear

Project

of Model(s): BURBUJA
Report of: ANSI Z87.1-2010 Faceshields - Base Model
Project ID(s): Z-LIB011515-06-01



On January 15, 2015, COLTS Laboratories received Faceshields: BURBUJA from LIBUS PPE. From January 23, 2015 through February 27, 2015 COLTS Laboratories tested these Faceshields in accordance with ANSI Z87.1-2010.

Final Conclusion:

The Faceshields: BURBUJA (901386 - Clear Window with Orange Crown and Black Headgear) do comply with ANSI Z87.1-2010 for the test(s) performed for ANSI Z87.1-2010 Faceshields - Base Model.

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

Respectfully submitted,

COLTS Laboratories

Daryl Neely
Vice-President & COO

Dale Payne
Technical Services Manager

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Report To: LIBUS PPE
Project No: Z-LIB011515-06-01



Sample ID:
BURBUJA
901386 - Clear Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 24

Lab Rh: 41

Report of: ANSI Z87.1-2010 Faceshields - Base Model

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Optical Quality	5.1.1	When tested in accordance with Section 9.1, protector lenses shall be free of: striae, bubbles, waves and other visible defects which would impair their optical quality.	Acceptable	Pass
Luminous Transmission	5.1.2	When tested in accordance with Section 9. 2, clear lenses shall have a luminous transmission of not less than 85%. Luminous Transmission Left Eye Right Eye	Acceptable 87.99% 88.92%	Pass Pass Pass
Haze	5.1.3	When tested in accordance with Section 9.3, clear plano lenses shall not exhibit more than 3% haze. Haze Left Eye Right Eye	Acceptable 0.59% 0.78%	Pass Pass Pass
Faceshield Resolving Power, Prism and Prism Imbalance for Plano Protectors	5.1.4	When tested in accordance with Section 9.4, the tolerance on resolving power shall be as indicated in Table 1. Filter lenses of shade 9 or higher are exempt from this testing. When tested in accordance with Section 9.5, the tolerance on prism and prism imbalance shall be as indicated in Table 2. Resolving Power (20 Min) Left Eye Right Eye Complete Prism (0.37 Max) Left Eye Right Eye Prismatic Imbalance Vertical (0.37 Max) Horizontal Base In/Out (In 0.125 Max; Out 0.75 Max)	Acceptable 20 20 Acceptable 0.206 0.300 Acceptable 0.05 0.50 out	Pass Pass Pass Pass Pass Pass Pass Pass
Physical Requirements	5.2	Protectors shall be free from: projections, sharp edges or other defects which are likely to cause discomfort or injury during use.	Acceptable	Pass

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Report To: LIBUS PPE
Project No: Z-LIB011515-06-01



A2LA Accredited Certificate # 1612.01

Sample ID:
BURBUJA
901386 - Clear Window with Orange Crown and Black Headgear

Report Date: 2/27/2015

Lab Temp (C): 24

Lab Rh: 41

Report of: ANSI Z87.1-2010 Faceshields - Base Model

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Drop Ball Impact Resistance	5.2.1	When tested in accordance with Section 9.6, protector lenses shall not fracture when impacted by a 25.4 mm (1 in.) steel ball when dropped from a height of 127 cm (50 in.). Glass welding filter lenses shall be tested and used in conjunction with a safety plate in order to comply with the impact performance criteria. Sample 1 - Left Eye Sample 2 - Left Eye Sample 3 - Right Eye Sample 4 - Right Eye	Acceptable Acceptable Acceptable Acceptable	Pass Pass Pass Pass
Ignition (Faceshield)	5.2.3	When tested in accordance with Section 9.7, protectors shall not ignite or continue to glow once the rod is removed. Each externally exposed material (exclusive of textiles or elastic bands) shall be tested. Lens/Window Headgear/Adapter Crown Chin protector Other	Acceptable Acceptable Acceptable N/A N/A	Pass Pass Pass N/A N/A
Corrosion Resistance of Metal Components	5.2.4	When tested in accordance with Section 9.8, metal components used in protectors shall be corrosion resistant to the degree that the function of the protector shall not be impaired by the corrosion. Lenses and electrical components are excluded from these requirements. Corrosion Resistant	N/A	N/A
Minimum Coverage Area	5.2.5	The eyewire and lens shall cover an area not less than 40 mm wide and 33 mm high (elliptical) in front of each eye. Frames designed for small head sizes (marked H) shall cover an area of not less than 34 mm wide and 28 mm high (elliptical). Minimum Coverage Area	Acceptable	Pass
Minimum Lens Thickness	5.3	The minimum lens thickness for specified protectors shall be those indicated in Table 3. Note 1: No minimum thickness requirement applies to the protector beyond a vertical plane passing through the 90 degree impact point. Note 2: For plano spectacles, no minimum thickness is required for protectors if they meet the requirements of Section 9.11, High Mass Impact Test. Minimum Thickness	N/A	N/A

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Report Date: 2/27/2015

Lab Temp (C): 24

Lab Rh: 41

Report of: ANSI Z87.1-2010 Faceshields - Base Model

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Marking Requirements (Faceshields)	5.4	All protectors shall bear the permanent markings in specified locations as shown in Table 4a. Markings shall follow the sequence shown in Table 4b. Markings for lens type and use applications shall be required only when claims for protection against the hazard or indicated use are made by the manufacturer.		
		Permanence of Markings	N/A	N/A
			Markings not accessed per customer request	
		Replaceable Lens Markings	N/A	N/A
		Sequence Correct	N/A	N/A
		Mfg Mark or Logo	N/A	N/A
		Z87 Mark	N/A	N/A
		+ Mark	N/A	N/A
		Lens Type (multiple claim sequence W,U,L,R,V,S)	N/A	N/A
			Markings not accessed per customer request	
		Faceshield Headgear/Adapter Markings	N/A	N/A
		Sequence Correct	N/A	N/A
		Mfg Mark or Logo	N/A	N/A
		Z87 Mark	N/A	N/A
		+ Mark	N/A	N/A
		H Mark (Coverage - small head sizes)	N/A	N/A
		Use (multiple claim sequence D3,D4,D5)	N/A	N/A
			Markings not accessed per customer request	
		Faceshield Crown Markings	N/A	N/A
		Sequence Correct	N/A	N/A
		Mfg Mark or Logo	N/A	N/A
		Z87 Mark	N/A	N/A
		+ Mark	N/A	N/A
		H Mark (Coverage - small head sizes)	N/A	N/A
		Use (multiple claim sequence D3,D4,D5)	N/A	N/A
			Markings not accessed per customer request	

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Sample ID:
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Lab Temp (C): 24

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Report of: ANSI Z87.1-2010 Faceshields - Base Model

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Aftermarket Components	5.7	All original equipment manufacturers (OEM) and non-OEM aftermarket components not sold with the original device shall be tested. Aftermarket Components	Manufacturer requirement	Not testable
Impact Rated Protectors	6.1.1	Impact-rated protectors and replaceable components shall meet the impact requirements in this standard and be marked in accordance with Table 4a and Table 4b. Impact Requirements Marking Requirements	Acceptable N/A Markings not accessed per customer request	Pass N/A
Lateral (Side) Coverage	6.1.3	When tested in accordance with Section 9.10, impact rated protectors shall provide continuous lateral coverage (i.e. no openings greater than 1.5mm (0.06 in.) in diameter) from the vertical plane of the lenses tangential to a point not less than 10 mm (0.394 in.) posterior to the corneal plane and not less than 10 mm (0.394 in.) in height (or 8 mm (0.315 in) for the smaller headform) above and not less than 10 mm (0.394 in.) in height (or 8 mm (0.315 in) for the smaller headform) below the horizontal plane centered on the eyes of the headform. The probe shall not contact the headform within the defined coverage area. Lateral (Side) Coverage	Acceptable	Pass
High Mass Impact	6.2.2	When tested in accordance with Section 9.11, the complete device shall be capable of resisting an impact from a pointed projectile weighing 500 g (17.6 oz.) dropped from a height of 127 cm (50.0 in.). Left Eye Sample 1 Left Eye Sample 2 Right Eye Sample 3 Right Eye Sample 4	Acceptable Acceptable Acceptable Acceptable	Pass Pass Pass Pass
High Velocity Impact (Faceshields)	6.2.3	When tested in accordance with Section 9.12, the complete device shall be capable of resisting impact from a 6.35 mm (0.25 in) diameter steel ball traveling at 300 feet per second. No contact with the eye of the headform is permitted as a result of impact. Left Eye Center Left Eye 30° Right Eye Center Right Eye 30° One Side 90° at 10mm Above (H - 8mm)	297 fps 297 fps 299 fps 299 fps 297 fps	Pass Pass Pass Pass Pass

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BURBUJA
901386 - Clear Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 24

Lab Rh: 41

Report of: ANSI Z87.1-2010 Faceshields - Base Model

Test/Property	Paragraph	Requirement	Test Results	Acceptance
High Velocity Impact (Faceshields)	6.2.3	When tested in accordance with Section 9.12, the complete device shall be capable of resisting impact from a 6.35 mm (0.25 in) diameter steel ball traveling at 300 feet per second. No contact with the eye of the headform is permitted as a result of impact. Opposite Side 90° at 10mm Below (H - 8mm)	300 fps	Pass
Penetration Test (lenses only)	6.2.4	When tested in accordance with Section 9.13, lenses for all complete devices shall be capable of resisting penetration by a weighted needle with a total weight of 44.2 gm (1.56 oz.) dropped from a height of 127 cm (50.0 in.). Left Eye Sample 1 Left Eye Sample 2 Right Eye Sample 3 Right Eye Sample 4	Acceptable Acceptable Acceptable Acceptable	Pass Pass Pass Pass

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**Report
Summary**

A2LA Accredited Certificate # 1612.01

Report To:

LIBUS PPE
Calle 21 Nro. 1213
Berazategui, Bs.As.

Attn: Miguel Caro

Date: February 27, 2015

Product Description: 902439 - Dark Green (W3) Window with Orange Crown and Black Headgear

On January 15, 2015, COLTS Laboratories received Faceshields: BURBUJA from LIBUS PPE. From January 23, 2015 through February 27, 2015 COLTS Laboratories tested these Faceshields in accordance with ANSI Z87.1-2010.

Final Conclusion:

The Faceshields: BURBUJA (902439 - Dark Green (W3) Window with Orange Crown and Black Headgear) do comply with ANSI Z87.1-2010 for the test(s) performed for ANSI Z87.1-2010 Faceshields - Window Variant.

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

Respectfully submitted,

COLTS Laboratories

Daryl Neely
Vice-President & COO

Dale Payne
Technical Services Manager



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Report To: LIBUS PPE
Project No: Z-LIB011515-06-02



Sample ID:
BURBUJA

902439 - Dark Green (W3) Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 49

Report of: ANSI Z87.1-2010 Faceshields - Window Variant

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Optical Quality	5.1.1	When tested in accordance with Section 9.1, protector lenses shall be free of: striae, bubbles, waves and other visible defects which would impair their optical quality.	Acceptable	Pass
Faceshield Resolving Power, Prism and Prism Imbalance for Plano Protectors	5.1.4	When tested in accordance with Section 9.4, the tolerance on resolving power shall be as indicated in Table 1. Filter lenses of shade 9 or higher are exempt from this testing. When tested in accordance with Section 9.5, the tolerance on prism and prism imbalance shall be as indicated in Table 2.		
		Resolving Power (20 Min)	Acceptable	Pass
		Left Eye	20	Pass
		Right Eye	20	Pass
		Complete Prism (0.37 Max)	Acceptable	Pass
		Left Eye	0.255	Pass
		Right Eye	0.255	Pass
		Prismatic Imbalance	Acceptable	Pass
		Vertical (0.37 Max)	0.00	Pass
		Horizontal Base In/Out (In 0.125 Max; Out 0.75 Max)	0.50 out	Pass
Physical Requirements	5.2	Protectors shall be free from: projections, sharp edges or other defects which are likely to cause discomfort or injury during use.	Acceptable	Pass
Drop Ball Impact Resistance	5.2.1	When tested in accordance with Section 9.6, protector lenses shall not fracture when impacted by a 25.4 mm (1 in.) steel ball when dropped from a height of 127 cm (50 in.). Glass welding filter lenses shall be tested and used in conjunction with a safety plate in order to comply with the impact performance criteria.		
		Sample 1 - Left Eye	Acceptable	Pass
		Sample 2 - Left Eye	Acceptable	Pass
		Sample 3 - Right Eye	Acceptable	Pass
		Sample 4 - Right Eye	Acceptable	Pass
Ignition (Faceshield)	5.2.3	When tested in accordance with Section 9.7, protectors shall not ignite or continue to glow once the rod is removed. Each externally exposed material (exclusive of textiles or elastic bands) shall be tested.		
		Lens/Window	Acceptable	Pass

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Report To: LIBUS PPE
Project No: Z-LIB011515-06-02



Sample ID:
BURBUJA

902439 - Dark Green (W3) Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 49

Report of: ANSI Z87.1-2010 Faceshields - Window Variant

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Corrosion Resistance of Metal Components	5.2.4	When tested in accordance with Section 9.8, metal components used in protectors shall be corrosion resistant to the degree that the function of the protector shall not be impaired by the corrosion. Lenses and electrical components are excluded from these requirements. Corrosion Resistant	N/A	N/A
Minimum Coverage Area	5.2.5	The eyewire and lens shall cover an area not less than 40 mm wide and 33 mm high (elliptical) in front of each eye. Frames designed for small head sizes (marked H) shall cover an area of not less than 34 mm wide and 28 mm high (elliptical). Minimum Coverage Area	Acceptable	Pass
Marking Requirements (Faceshields)	5.4	All protectors shall bear the permanent markings in specified locations as shown in Table 4a. Markings shall follow the sequence shown in Table 4b. Markings for lens type and use applications shall be required only when claims for protection against the hazard or indicated use are made by the manufacturer. Permanence of Markings Replaceable Lens Markings Sequence Correct Mfg Mark or Logo Z87 Mark + Mark Lens Type (multiple claim sequence W,U,L,R,V,S)	N/A Markings not accessed per customer request N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A
Frames for Replaceable or Removable Lenses	5.5.4	All frames which can house replaceable or removable lenses shall be supplied with detailed specifications on the required lens bevel design or mounting technique and nominal lens sizing required to conform to ANSI/ISEA Z87.1-2010. Specifications supplied	N/A	N/A
Aftermarket Components	5.7	All original equipment manufacturers (OEM) and non-OEM aftermarket components not sold with the original device shall be tested. Aftermarket Components	Manufacturer requirement	Not testable

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Sample ID:
BURBUJA
902439 - Dark Green (W3) Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 49

Report of: ANSI Z87.1-2010 Faceshields - Window Variant

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Impact Rated Protectors	6.1.1	Impact-rated protectors and replaceable components shall meet the impact requirements in this standard and be marked in accordance with Table 4a and Table 4b.		
		Impact Requirements	Acceptable	Pass
		Marking Requirements	N/A	N/A
		Markings not accessed per customer request		
Lateral (Side) Coverage	6.1.3	When tested in accordance with Section 9.10, impact rated protectors shall provide continuous lateral coverage (i.e. no openings greater than 1.5mm (0.06 in.) in diameter) from the vertical plane of the lenses tangential to a point not less than 10 mm (0.394 in.) posterior to the corneal plane and not less than 10 mm (0.394 in.) in height (or 8 mm (0.315 in) for the smaller headform) above and not less than 10 mm (0.394 in.) in height (or 8 mm (0.315 in) for the smaller headform) below the horizontal plane centered on the eyes of the headform. The probe shall not contact the headform within the defined coverage area.		
		Lateral (Side) Coverage	Acceptable	Pass
High Mass Impact	6.2.2	When tested in accordance with Section 9.11, the complete device shall be capable of resisting an impact from a pointed projectile weighing 500 g (17.6 oz.) dropped from a height of 127 cm (50.0 in.).		
		Left Eye Sample 1	Acceptable	Pass
		Left Eye Sample 2	Acceptable	Pass
		Right Eye Sample 3	Acceptable	Pass
		Right Eye Sample 4	Acceptable	Pass
High Velocity Impact (Faceshields)	6.2.3	When tested in accordance with Section 9.12, the complete device shall be capable of resisting impact from a 6.35 mm (0.25 in) diameter steel ball traveling at 300 feet per second. No contact with the eye of the headform is permitted as a result of impact.		
		Left Eye Center	298 fps	Pass
		Left Eye 30°	304 fps	Pass
		Right Eye Center	298 fps	Pass
		Right Eye 30°	297 fps	Pass
		One Side 90° at 10mm Above (H - 8mm)	304 fps	Pass
		Opposite Side 90° at 10mm Below (H - 8mm)	304 fps	Pass

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Sample ID:
BURBUJA
902439 - Dark Green (W3) Window with Orange Crown and
Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 49

Report of: ANSI Z87.1-2010 Faceshields - Window Variant

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Penetration Test (lenses only)	6.2.4	When tested in accordance with Section 9.13, lenses for all complete devices shall be capable of resisting penetration by a weighted needle with a total weight of 44.2 gm (1.56 oz.) dropped from a height of 127 cm (50.0 in.).		
		Left Eye Sample 1	Acceptable	Pass
		Left Eye Sample 2	Acceptable	Pass
		Right Eye Sample 3	Acceptable	Pass
		Right Eye Sample 4	Acceptable	Pass
Devices with Lift Fronts	6.3.1	Complete devices with lift fronts shall be impact tested with the lift front in the "up" position.		
		Lift front in "up" position.	N/A	N/A

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**Report
Summary**

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Report To:

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Calle 21 Nro. 1213
Berazategui, Bs.As.

Project

of Model(s): BURBUJA
Report of: ANSI Z87.1-2010 Optional Transmittance
Attributes (W)
Project ID(s): Z-LIB011515-06-03

Attn: Miguel Caro

Date: February 27, 2015

Product Description: 902439 - Dark Green (W3) Window with Orange Crown and Black Headgear



On January 15, 2015, COLTS Laboratories received Faceshields: BURBUJA from LIBUS PPE. From January 23, 2015 through February 27, 2015 COLTS Laboratories tested these Faceshields in accordance with ANSI Z87.1-2010.

Final Conclusion:

The Faceshields: BURBUJA (902439 - Dark Green (W3) Window with Orange Crown and Black Headgear) do comply with ANSI Z87.1-2010 for the test(s) performed for ANSI Z87.1-2010 Optional Transmittance Attributes (W).

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

Respectfully submitted,

COLTS Laboratories

Daryl Neely
Vice-President & COO

Dale Payne
Technical Services Manager

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Sample ID:
BURBUJA

902439 - Dark Green (W3) Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 51

Report of: ANSI Z87.1-2010 Optional Transmittance Attributes (W)

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Optional Transmittance Attributes	7.1.1	Claims of compliance to Tables 6, 7, 8 and 9 shall require the protector to bear the appropriate marking. Markings	N/A Markings not accessed per customer request	N/A
Clear and Filter Lenses (W Filters)	7.1.2	Plano and prescription lenses shall comply with the applicable transmittance requirements of Tables 6 through 10, and the notes that follow, for clear and filter lenses. Such lenses shall be marked with the appropriate shade or scale marking, in compliance with Table 4a. Measurements shall be taken in accordance with Section 9.2. Clear lenses have a luminous transmission of not less than 85%. Representative test lenses of plano power may be substituted for prescription lenses in this test. Markings (See Section 5.4 for details)	N/A Markings not accessed per customer request	N/A
		U.V. Far	Acceptable	Pass
		Left Eye	0.002049%	Pass
		Right Eye	0.002094%	Pass
		U.V. Near	Acceptable	Pass
		Left Eye	0.002512%	Pass
		Right Eye	0.002457%	Pass
		I.R.	Acceptable	Pass
		Left Eye	2.644172%	Pass
		Right Eye	2.649820%	Pass
		Blue Light	Acceptable	Pass
		Left Eye	0.406630%	Pass
		Right Eye	0.412881%	Pass
		Luminous	Acceptable	Pass
		Left Eye	9.596195%	Pass
		Right Eye	9.696999%	Pass

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Sample ID:
BURBUJA
902439 - Dark Green (W3) Window with Orange Crown and
Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 51

Report of: ANSI Z87.1-2010 Optional Transmittance Attributes (W)

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Variations in Luminous Transmittance	7.1.5	For shades 1.3 through 3.0, the ratio of the two measured transmittances, one for each lens of a removable pair, or at points directly in front of each eye for a non-removable lens shall not be less than 0.90, nor more than 1.11. For shades 4.0 through 14 inclusive, the ratio of the two measured transmittances, shall be not less than 0.80 nor more than 1.25. Variation in transmission shall be measured in the darkest state. Ratio - Shades 1.3 - 3.0; 0.90 - 1.11	0.990	Pass

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Summary**

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Report To:

LIBUS PPE

Calle 21 Nro. 1213

Berazategui, Bs.As.

Attn: Miguel Caro

Date: February 27, 2015

Product Description: 902440 - Dark Green (W5) Window with Orange Crown and Black Headgear

On January 15, 2015, COLTS Laboratories received Faceshields: BURBUJA from LIBUS PPE. From January 23, 2015 through February 27, 2015 COLTS Laboratories tested these Faceshields in accordance with ANSI Z87.1-2010.

Final Conclusion:

The Faceshields: BURBUJA (902440 - Dark Green (W5) Window with Orange Crown and Black Headgear) do comply with ANSI Z87.1-2010 for the test(s) performed for ANSI Z87.1-2010 Faceshields - Window Variant.

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

Respectfully submitted,

COLTS Laboratories

Daryl Neely

Vice-President & COO

Dale Payne

Technical Services Manager



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Report To: LIBUS PPE
Project No: Z-LIB011515-06-04



Sample ID:
BURBUJA

902440 - Dark Green (W5) Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 49

Report of: ANSI Z87.1-2010 Faceshields - Window Variant

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Optical Quality	5.1.1	When tested in accordance with Section 9.1, protector lenses shall be free of: striae, bubbles, waves and other visible defects which would impair their optical quality.	Acceptable	Pass
Faceshield Resolving Power, Prism and Prism Imbalance for Plano Protectors	5.1.4	When tested in accordance with Section 9.4, the tolerance on resolving power shall be as indicated in Table 1. Filter lenses of shade 9 or higher are exempt from this testing. When tested in accordance with Section 9.5, the tolerance on prism and prism imbalance shall be as indicated in Table 2.		
		Resolving Power (20 Min)	Acceptable	Pass
		Left Eye	20	Pass
		Right Eye	20	Pass
		Complete Prism (0.37 Max)	Acceptable	Pass
		Left Eye	0.292	Pass
		Right Eye	0.292	Pass
		Prismatic Imbalance	Acceptable	Pass
		Vertical (0.37 Max)	0.00	Pass
		Horizontal Base In/Out (In 0.125 Max; Out 0.75 Max)	0.50 out	Pass
Physical Requirements	5.2	Protectors shall be free from: projections, sharp edges or other defects which are likely to cause discomfort or injury during use.	Acceptable	Pass
Drop Ball Impact Resistance	5.2.1	When tested in accordance with Section 9.6, protector lenses shall not fracture when impacted by a 25.4 mm (1 in.) steel ball when dropped from a height of 127 cm (50 in.). Glass welding filter lenses shall be tested and used in conjunction with a safety plate in order to comply with the impact performance criteria.		
		Sample 1 - Left Eye	Acceptable	Pass
		Sample 2 - Left Eye	Acceptable	Pass
		Sample 3 - Right Eye	Acceptable	Pass
		Sample 4 - Right Eye	Acceptable	Pass
Ignition (Faceshield)	5.2.3	When tested in accordance with Section 9.7, protectors shall not ignite or continue to glow once the rod is removed. Each externally exposed material (exclusive of textiles or elastic bands) shall be tested.		
		Lens/Window	Acceptable	Pass

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Report To: LIBUS PPE
Project No: Z-LIB011515-06-04



Sample ID:
BURBUJA

902440 - Dark Green (W5) Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 49

Report of: ANSI Z87.1-2010 Faceshields - Window Variant

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Corrosion Resistance of Metal Components	5.2.4	When tested in accordance with Section 9.8, metal components used in protectors shall be corrosion resistant to the degree that the function of the protector shall not be impaired by the corrosion. Lenses and electrical components are excluded from these requirements. Corrosion Resistant	N/A	N/A
Minimum Coverage Area	5.2.5	The eyewire and lens shall cover an area not less than 40 mm wide and 33 mm high (elliptical) in front of each eye. Frames designed for small head sizes (marked H) shall cover an area of not less than 34 mm wide and 28 mm high (elliptical). Minimum Coverage Area	Acceptable	Pass
Marking Requirements (Faceshields)	5.4	All protectors shall bear the permanent markings in specified locations as shown in Table 4a. Markings shall follow the sequence shown in Table 4b. Markings for lens type and use applications shall be required only when claims for protection against the hazard or indicated use are made by the manufacturer. Permanence of Markings Replaceable Lens Markings Sequence Correct Mfg Mark or Logo Z87 Mark + Mark Lens Type (multiple claim sequence W,U,L,R,V,S)	N/A Markings not accessed per customer request N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A
Frames for Replaceable or Removable Lenses	5.5.4	All frames which can house replaceable or removable lenses shall be supplied with detailed specifications on the required lens bevel design or mounting technique and nominal lens sizing required to conform to ANSI/ISEA Z87.1-2010. Specifications supplied	N/A	N/A
Aftermarket Components	5.7	All original equipment manufacturers (OEM) and non-OEM aftermarket components not sold with the original device shall be tested. Aftermarket Components	Manufacturer requirement	Not testable

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Report To: LIBUS PPE
Project No: Z-LIB011515-06-04



Sample ID:
BURBUJA
902440 - Dark Green (W5) Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 49

Report of: ANSI Z87.1-2010 Faceshields - Window Variant

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Impact Rated Protectors	6.1.1	Impact-rated protectors and replaceable components shall meet the impact requirements in this standard and be marked in accordance with Table 4a and Table 4b.		
		Impact Requirements	Acceptable	Pass
		Marking Requirements	N/A	N/A
		Markings not accessed per customer request		
Lateral (Side) Coverage	6.1.3	When tested in accordance with Section 9.10, impact rated protectors shall provide continuous lateral coverage (i.e. no openings greater than 1.5mm (0.06 in.) in diameter) from the vertical plane of the lenses tangential to a point not less than 10 mm (0.394 in.) posterior to the corneal plane and not less than 10 mm (0.394 in.) in height (or 8 mm (0.315 in) for the smaller headform) above and not less than 10 mm (0.394 in.) in height (or 8 mm (0.315 in) for the smaller headform) below the horizontal plane centered on the eyes of the headform. The probe shall not contact the headform within the defined coverage area.		
		Lateral (Side) Coverage	Acceptable	Pass
High Mass Impact	6.2.2	When tested in accordance with Section 9.11, the complete device shall be capable of resisting an impact from a pointed projectile weighing 500 g (17.6 oz.) dropped from a height of 127 cm (50.0 in.).		
		Left Eye Sample 1	Acceptable	Pass
		Left Eye Sample 2	Acceptable	Pass
		Right Eye Sample 3	Acceptable	Pass
		Right Eye Sample 4	Acceptable	Pass
High Velocity Impact (Faceshields)	6.2.3	When tested in accordance with Section 9.12, the complete device shall be capable of resisting impact from a 6.35 mm (0.25 in) diameter steel ball traveling at 300 feet per second. No contact with the eye of the headform is permitted as a result of impact.		
		Left Eye Center	304 fps	Pass
		Left Eye 30°	298 fps	Pass
		Right Eye Center	305 fps	Pass
		Right Eye 30°	297 fps	Pass
		One Side 90° at 10mm Above (H - 8mm)	297 fps	Pass
		Opposite Side 90° at 10mm Below (H - 8mm)	297 fps	Pass

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Report To: LIBUS PPE
Project No: Z-LIB011515-06-04



Sample ID:
BURBUJA
902440 - Dark Green (W5) Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 49

Report of: ANSI Z87.1-2010 Faceshields - Window Variant

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Penetration Test (lenses only)	6.2.4	When tested in accordance with Section 9.13, lenses for all complete devices shall be capable of resisting penetration by a weighted needle with a total weight of 44.2 gm (1.56 oz.) dropped from a height of 127 cm (50.0 in.).		
		Left Eye Sample 1	Acceptable	Pass
		Left Eye Sample 2	Acceptable	Pass
		Right Eye Sample 3	Acceptable	Pass
		Right Eye Sample 4	Acceptable	Pass
Devices with Lift Fronts	6.3.1	Complete devices with lift fronts shall be impact tested with the lift front in the "up" position.		
		Lift front in "up" position.	N/A	N/A

COLTS Laboratories

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**Report
Summary**

A2LA Accredited Certificate # 1612.01

Report To:

LIBUS PPE
Calle 21 Nro. 1213
Berazategui, Bs.As.

Project

of Model(s): BURBUJA
Report of: ANSI Z87.1-2010 Optional Transmittance
Attributes (W)
Project ID(s): Z-LIB011515-06-05



Attn: Miguel Caro

Date: February 27, 2015

Product Description: 902440 - Dark Green (W5) Window with Orange Crown and Black Headgear

On January 15, 2015, COLTS Laboratories received Faceshields: BURBUJA from LIBUS PPE. From January 23, 2015 through February 27, 2015 COLTS Laboratories tested these Faceshields in accordance with ANSI Z87.1-2010.

Final Conclusion:

The Faceshields: BURBUJA (902440 - Dark Green (W5) Window with Orange Crown and Black Headgear) do comply with ANSI Z87.1-2010 for the test(s) performed for ANSI Z87.1-2010 Optional Transmittance Attributes (W).

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

Respectfully submitted,

COLTS Laboratories

Daryl Neely
Vice-President & COO

Dale Payne
Technical Services Manager

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Report To: LIBUS PPE
Project No: Z-LIB011515-06-05



Sample ID:
BURBUJA
902440 - Dark Green (W5) Window with Orange Crown and Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 51

Report of: ANSI Z87.1-2010 Optional Transmittance Attributes (W)

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Optional Transmittance Attributes	7.1.1	Claims of compliance to Tables 6, 7, 8 and 9 shall require the protector to bear the appropriate marking. Markings	N/A Markings not accessed per customer request	N/A
Clear and Filter Lenses (W Filters)	7.1.2	Plano and prescription lenses shall comply with the applicable transmittance requirements of Tables 6 through 10, and the notes that follow, for clear and filter lenses. Such lenses shall be marked with the appropriate shade or scale marking, in compliance with Table 4a. Measurements shall be taken in accordance with Section 9.2. Clear lenses have a luminous transmission of not less than 85%. Representative test lenses of plano power may be substituted for prescription lenses in this test. Markings (See Section 5.4 for details)	N/A Markings not accessed per customer request	N/A
		U.V. Far	Acceptable	Pass
		Left Eye	0.002004%	Pass
		Right Eye	0.002023%	Pass
		U.V. Near	Acceptable	Pass
		Left Eye	0.002420%	Pass
		Right Eye	0.002369%	Pass
		I.R.	Acceptable	Pass
		Left Eye	2.413037%	Pass
		Right Eye	2.292304%	Pass
		Blue Light	Acceptable	Pass
		Left Eye	0.093755%	Pass
		Right Eye	0.096405%	Pass
		Luminous	Acceptable	Pass
		Left Eye	2.648291%	Pass
		Right Eye	0.710396%	Pass

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Report To: LIBUS PPE
Project No: Z-LIB011515-06-05



Sample ID:
BURBUJA
902440 - Dark Green (W5) Window with Orange Crown and
Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 23

Lab Rh: 51

Report of: ANSI Z87.1-2010 Optional Transmittance Attributes (W)

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Variations in Luminous Transmittance	7.1.5	For shades 1.3 through 3.0, the ratio of the two measured transmittances, one for each lens of a removable pair, or at points directly in front of each eye for a non-removable lens shall not be less than 0.90, nor more than 1.11. For shades 4.0 through 14 inclusive, the ratio of the two measured transmittances, shall be not less than 0.80 nor more than 1.25. Variation in transmission shall be measured in the darkest state. Ratio - Shades 4 - 14; 0.80 - 1.25	0.977	Pass

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**Report
Summary**

A2LA Accredited Certificate # 1612.01

Report To:

LIBUS PPE
Calle 21 Nro. 1213
Berazategui, Bs.As.

Project

of Model(s): BURBUJA
Report of: ANSI Z87.1-2010 Faceshields - Droplet and
Splash Hazard
Project ID(s): Z-LIB011515-06-06

Attn: Miguel Caro

Date: February 27, 2015

Product Description: 902440 - Dark Green (W5) Window with Orange Crown and Black Headgear



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This test also covers all additional lens colors

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

Respectfully submitted,

COLTS Laboratories

Daryl Neely
Vice-President & COO

Dale Payne
Technical Services Manager

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Report To: LIBUS PPE
Project No: Z-LIB011515-06-06



Sample ID:
BURBUJA
902440 - Dark Green (W5) Window with Orange Crown and
Black Headgear

A2LA Accredited Certificate # 1612.01

Report Date: 2/27/2015

Lab Temp (C): 21

Lab Rh: 43

Report of: ANSI Z87.1-2010 Faceshields - Droplet and Splash Hazard

Test/Property	Paragraph	Requirement	Test Results	Acceptance
Droplet and Splash Hazard - Faceshields	8.1.2	When tested in accordance with Section 9.16.2, the laser beam shall not make direct contact with any point on the eye-region rectangle without first being intercepted by the faceshield. Faceshield Droplet and Splash Hazard	Acceptable	Pass