

October 25, 2012

Vicsa Safety S.A.
Casa Matriz
Pintor Cicarelli
683-SAN JOAQUÍN
SAN
CHILI

Intertek Test Report Number: G100789754CRT-106

Dear Vicsa Staff:

Intertek has completed the evaluation of your Bronze Safety Spectacles with Bronze Mirror Lenses, manufactured by Vicsa Safety S.A. to the Rating of Z87+. The Safety Spectacles were evaluated to the requirements of **American National Standard for Occupational and Educational Personal Eye and Face Protection Devices, ANSI/ISEA Z87.1-2010**. The test samples were received on 7/23/12 in new condition. The evaluations were performed at Intertek in Cortland, NY on 10/4/12 through 10/9/12. The results of these tests are as indicated below.

Sample(s) provided for Evaluation:

20 Pairs of Safety Spectacles

<u>Tests Completed:</u>	<u>Test Date(s):</u>	<u>Section</u>	<u>Results</u>
General Requirements (All Protectors)	10/4/12-10/9/12	5	PASS
Impact Protector Requirements (Z87+)	10/4/12-10/9/12	6	PASS
Droplet and Splash, Dust, and Fine Dust Protector Requirements	N/A	8	N/A

NOTE: See Pages 3-8 for the representative data sheets for the product evaluated.

This test report concludes the work for your project outlined under Intertek Quote No: 500386937. If there are any questions regarding this report please contact the undersigned at 607-753-6711.

Tested by:



Erik Sprague
Associate Engineer
Performance Group

Reviewed by:



Jason Allen
Technical Advisor
Performance Group

An independent organization testing for safety, performance, and certification.

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Intertek, Inc.

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Telephone: +1 607-753-6711 Fax: +1 607-756-9891 Web: www.intertek.com



INTERTEK TEST DATA SHEETS

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Client:	Vicsa Safety SA	Engineer:	Erik Sprague	
Job No.:	G100789754	Tested By:	Erik Sprague	Date: 10/04/12-10/09/12
Product:	Spectacles	Reviewed By:	Sara Ensign	Date: 10/16/12
Model No.:	Bronze	Standard:	ANSI/ISEA Z87.1-2010	
Description:	Safety Spectacles with bronze mirror lenses			

Sample Control Number: **2012-07-252206**

TRANSCRIBED TEST DATA

Type:	Spectacle: X	Goggle:	Faceshield:	WH Lenses:	FF Respirator:	Removable:
Style:	Plano: X	Rx:	Photochromatic:	Tinted: X	Clear:	Non-Removable: X

Table of Contents:				
Required:	Page(s):	Section:	Test Description:	Pass/Fail:
(X)	1-8	N/A	Intertek Report No: G100789754CRT-106	N/A
(X)	2	N/A	Table of Contents	N/A
(X)	2	N/A	Equipment List	N/A
(X)	3-5	5	General Requirements (all protectors)	PASS
(X)	6-8	6	Impact Protector Requirements (Z87+)	PASS

*For Table 7 and Table 9 see Report No. 100789754CRT-003

Equipment List:					
Used:	Equipment:	Manufacturer:	Model No.:	Control No.:	Cal. Due Date:
(X)	Headform	Inspec	EN 168:2001 Medium Head (50 th percentile adult male)	N/A	N/A
(X)	Headform	Inspec	"H" Head	NA	N/A
(X)	6-inch scales	Fowler	52-389-006	N1273	4/23/13
(X)	Gram Scale	Denver Inst	DI-4K	S132	11/11/12
(X)	Calipers	Mitu	0-6"	N1217	5/30/13
(X)	Tape Measure	Craftsman	939392	N766	11/22/12
(X)	Thermocouple / Meter / Rod	Newport	HHM290/N	M218	12/14/12
(X)	Balance/Scale	Ohaus	Precision Standard	S115	2/17/13
(X)	High Mass Impactor (pointed projectile)	Intertek	Z87-2010 High Mass	J143	12/14/12
(X)	Air Cannon	Basic Eng	HVIT	N740	8/3/13
(X)	Ventilation Probe	Intertek	1.5mm x 125mm	J154	8/3/13
(X)	Needle Penetrator	Intertek	Z87-2010 Penetrator	J174	N/A
(X)	Drop Ball	Intertek	Z87-2010 Drop Ball	J147	2/10/13

INTERTEK TEST DATA SHEETS

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Client: Vicsa Safety SA Engineer: Erik Sprague

Job No.: G100789754 Tested By: Erik Sprague Date: 10/04/12-10/09/12

Product: Spectacles Reviewed By: Sara Ensign Date: 10/16/12

Model No.: Bronze Standard: ANSI/ISEA Z87.1-2010

Description: Safety Spectacles with bronze mirror lenses

Sample Control Number: **2012-07-252206**

TRANSCRIBED TEST DATA

Type:	Spectacle: X	Goggle:	Faceshield:	WH Lenses:	FF Respirator:	Removable:
Style:	Plano: X	Rx:	Photochromatic:	Tinted: X	Clear:	Non-Removable: X

Section 5, General Requirements (All Protectors)

Section (Test)	Requirement	Results	Compliance																																							
5	General Requirements (All Protectors)																																									
5.2	Physical Requirements: Protectors shall be free from projections, sharp edges or other defects which are likely to cause discomfort or injury during use.	<table><tr><td>Sample #</td><td colspan="2">1</td></tr><tr><td colspan="3">Physical Defects</td></tr><tr><td colspan="3">NO</td></tr><tr><td colspan="3"></td></tr></table>	Sample #	1		Physical Defects			NO						PASS																											
Sample #	1																																									
Physical Defects																																										
NO																																										
5.2.1 (9.6)	Drop Ball Impact Resistance: The protector lenses shall not fracture when impacted by a steel ball. A complete device shall fail if any of the following occurs; piece fully detached from inner surface, fracture, penetration of the rear surface, or lens not retained <table><tr><th colspan="3">Drop-Ball</th></tr><tr><td></td><td>Required</td><td>Actual</td></tr><tr><td>Weight, grams</td><td>68</td><td>68.3</td></tr><tr><td>Diameter, mm (inch)</td><td>25.4 (1’')</td><td>25.4</td></tr><tr><td>Drop Height, cm (inch)</td><td>127 (50’')</td><td>50’’</td></tr></table>	Drop-Ball				Required	Actual	Weight, grams	68	68.3	Diameter, mm (inch)	25.4 (1’')	25.4	Drop Height, cm (inch)	127 (50’')	50’’	<table><tr><th colspan="3">Laboratory Conditions:</th></tr><tr><td>Req’d:</td><td>Temperature Range 18-28 °C (65-82 °F)</td><td>Humidity Range 35-65 %</td></tr><tr><td>Actual:</td><td>70</td><td>54</td></tr></table> <table><tr><td>Sample 9.6:</td><td>Impact eye Location</td><td>Fracture, penetration, etc</td></tr><tr><td>(1)</td><td>Left</td><td>NO</td></tr><tr><td>(2)</td><td>Left</td><td>NO</td></tr><tr><td>(3)</td><td>Right</td><td>NO</td></tr><tr><td>(4)</td><td>Right</td><td>NO</td></tr></table>	Laboratory Conditions:			Req’d:	Temperature Range 18-28 °C (65-82 °F)	Humidity Range 35-65 %	Actual:	70	54	Sample 9.6:	Impact eye Location	Fracture, penetration, etc	(1)	Left	NO	(2)	Left	NO	(3)	Right	NO	(4)	Right	NO	PASS
Drop-Ball																																										
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(1)	Left	NO																																								
(2)	Left	NO																																								
(3)	Right	NO																																								
(4)	Right	NO																																								
5.2.2	Protector Criteria	See section 5.2.1	Info only																																							
5.2.3 (9.7)	Ignition: 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.	<table><tr><td>Sample #:</td><td colspan="2">2</td></tr></table> <table><tr><th colspan="3">Laboratory Conditions:</th></tr><tr><td>Req’d:</td><td>Temperature Range 18-28 °C (65-82 °F)</td><td>Humidity Range 35-65 %</td></tr><tr><td>Actual:</td><td>67</td><td>63</td></tr></table> <table><tr><td>Type</td><td>Ignition</td><td>Afterglow</td></tr><tr><td>Lens</td><td>NO</td><td>NO</td></tr><tr><td>Frame</td><td>NO</td><td>NO</td></tr><tr><td>Temple</td><td>NO</td><td>NO</td></tr></table>	Sample #:	2		Laboratory Conditions:			Req’d:	Temperature Range 18-28 °C (65-82 °F)	Humidity Range 35-65 %	Actual:	67	63	Type	Ignition	Afterglow	Lens	NO	NO	Frame	NO	NO	Temple	NO	NO	PASS															
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Client:	Vicsa Safety SA	Engineer:	Erik Sprague
Job No.:	G100789754	Tested By:	Erik Sprague
Product:	Spectacles	Reviewed By:	Sara Ensign
Model No.:	Bronze	Standard:	ANSI/ISEA Z87.1-2010
Description:	Safety Spectacles with bronze mirror lenses		

Sample Control Number: **2012-07-252206**

TRANSCRIBED TEST DATA

Type:	Spectacle: X	Goggle:	Faceshield:	WH Lenses:	FF Respirator:	Removable:
Style:	Plano: X	Rx:	Photochromatic:	Tinted: X	Clear:	Non-Removable: X

Section (Test)	Requirement	Results	Compliance																																										
5	General Requirements (All Protectors)																																												
5.2.4 (9.8)	<p>Corrosion Resistance:</p> <p>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.</p> <table><tr><td>Date/Time:</td><td>10/4/12 – 10/5/12 @ 10am</td></tr><tr><td>10/4/12</td><td>Brine solution:</td></tr><tr><td>10/4/12</td><td>Boil for 15 minutes</td></tr><tr><td>10/4/12</td><td>Immerse in room temp solution</td></tr><tr><td>10/4/12-10/5/12</td><td>Dry for 24-hours at room temp</td></tr><tr><td>10/5/12</td><td>Rinse, air dry, evaluate</td></tr></table>	Date/Time:	10/4/12 – 10/5/12 @ 10am	10/4/12	Brine solution:	10/4/12	Boil for 15 minutes	10/4/12	Immerse in room temp solution	10/4/12-10/5/12	Dry for 24-hours at room temp	10/5/12	Rinse, air dry, evaluate	<table><tr><th colspan="3">Laboratory Conditions:</th></tr><tr><td>Req'd:</td><td>Temperature Range 18-28 °C (65-82 °F)</td><td>Humidity Range 35-65 %</td></tr><tr><td>Actual:</td><td>67-71</td><td>63-65</td></tr></table> <table><tr><td>Sample #:</td><td>2</td></tr><tr><td>Metal Components</td><td>Function Impaired</td></tr><tr><td>Screw 1</td><td>NO</td></tr><tr><td>Screw 2</td><td>NO</td></tr></table>	Laboratory Conditions:			Req'd:	Temperature Range 18-28 °C (65-82 °F)	Humidity Range 35-65 %	Actual:	67-71	63-65	Sample #:	2	Metal Components	Function Impaired	Screw 1	NO	Screw 2	NO	PASS													
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Screw 2	NO																																												
5.2.5	<p>Minimum Coverage Area:</p> <p>The eyewire and lens shall cover in plain view an area of not less than 40 mm (1.57 in.) in width and 33 mm (1.30 in.) in height (elliptical) in front of each eye, centered on the geometrical center of the lens.</p> <p>Frames designed for small head sizes shall cover in plain view an area of not less than 34 mm (1.34 in.) in width and 28 mm (1.10 in.) in height (elliptical), centered on the geometrical center of the lens.</p> <p>Frames designed for small head sizes shall be tested on the 54 mm (2.13 in.) PD headform and are permitted to have an eye size, including eyewire thickness, as small as 34 x 28 mm (1.34 x 1.10 in.). Frames that are tested using the small headform shall be marked on the frame with the letter “H”.</p>	<table><tr><td>Sample #:</td><td>1</td></tr><tr><td colspan="2">Minimum Coverage</td></tr><tr><td colspan="2">YES</td></tr></table>	Sample #:	1	Minimum Coverage		YES		PASS																																				
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YES																																													
5.3	<p>Minimum Lens Thickness:</p> <p>The minimum lens thickness for specified protector shall be those indicated in Table 3.</p>	<table><tr><td>Sample #:</td><td colspan="2">1</td></tr><tr><td>Type: (see table below)</td><td colspan="2">6</td></tr><tr><td>Measured Lens Thickness (mm):</td><td colspan="2">1.15</td></tr></table> <table><tr><th colspan="3">Table 3 Minimum Lens Thickness</th></tr><tr><th>No.</th><th>Protector</th><th>Minimum Thickness</th></tr><tr><td>1</td><td>Spectacle, Plano</td><td>≥ 3.0 mm (0.12 in.)</td></tr><tr><td>2</td><td>Spectacle, Plano, Impact Rated</td><td>No Minimum Thickness Requirement</td></tr><tr><td>3</td><td>Spectacle, Prescription</td><td>≥ 3.0 mm (0.12 in.)</td></tr><tr><td>4</td><td>Spectacle, Prescription, Impact Rated</td><td>≥ 2.0 mm (0.08 in.)</td></tr><tr><td>5</td><td>Goggles</td><td>≥ 3.0 mm (0.12 in.) Glass ≥ 1.27 mm (0.05 in.), Non-glass</td></tr><tr><td>6</td><td>Goggles, Impact Rated</td><td>No Minimum Thickness Requirement</td></tr><tr><td>7</td><td>Faceshield</td><td>≥ 1.0 mm (0.04 in.)</td></tr><tr><td>8</td><td>Faceshield, Impact Rated</td><td>No Minimum Thickness Requirement</td></tr><tr><td>9</td><td>Welding Helmets</td><td>No Minimum Thickness Requirement</td></tr></table>	Sample #:	1		Type: (see table below)	6		Measured Lens Thickness (mm):	1.15		Table 3 Minimum Lens Thickness			No.	Protector	Minimum Thickness	1	Spectacle, Plano	≥ 3.0 mm (0.12 in.)	2	Spectacle, Plano, Impact Rated	No Minimum Thickness Requirement	3	Spectacle, Prescription	≥ 3.0 mm (0.12 in.)	4	Spectacle, Prescription, Impact Rated	≥ 2.0 mm (0.08 in.)	5	Goggles	≥ 3.0 mm (0.12 in.) Glass ≥ 1.27 mm (0.05 in.), Non-glass	6	Goggles, Impact Rated	No Minimum Thickness Requirement	7	Faceshield	≥ 1.0 mm (0.04 in.)	8	Faceshield, Impact Rated	No Minimum Thickness Requirement	9	Welding Helmets	No Minimum Thickness Requirement	PASS
Sample #:	1																																												
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Client:	Vicsa Safety SA	Engineer:	Erik Sprague	
Job No.:	G100789754	Tested By:	Erik Sprague	10/04/12-10/09/12
Product:	Spectacles	Reviewed By:	Sara Ensign	Date: 10/16/12
Model No.:	Bronze	Standard:	ANSI/ISEA Z87.1-2010	
Description:	Safety Spectacles with bronze mirror lenses			

Sample Control Number: 2012-07-252206

TRANSCRIBED TEST DATA

Type:	Spectacle: X	Goggle:	Faceshield:	WH Lenses:	FF Respirator:	Removable:
Style:	Plano: X	Rx:	Photochromatic:	Tinted: X	Clear:	Non-Removable: X

Section (Test)	Requirement	Results	Compliance																																																																																						
5	General Requirements (All Protectors)																																																																																								
5.4	<p>Marking Requirements:</p> <p>All protectors shall bear the permanent markings in specified locations as shown in Table 4a of the standard. Markings shall follow the sequence shown in Table 4b of the standard. Marking 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.</p> <p>In addition, the components of frames that are intended for prescription protector use shall be marked for size in accordance with the system described in ANSI Z80.5-2004. Fronts shall be marked with the A-dimension (eye size) and DBL.</p>	<table><tr><td>Sample #:</td><td>1</td></tr><tr><td colspan="2">Markings on Sample</td></tr><tr><td colspan="2">VICZ87+U6L1.7S</td></tr><tr><td>Meets requirements of Table 4a or 4b:</td><td>YES</td></tr></table>	Sample #:	1	Markings on Sample		VICZ87+U6L1.7S		Meets requirements of Table 4a or 4b:	YES	PASS																																																																														
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Meets requirements of Table 4a or 4b:	YES																																																																																								
<p>Reference Table 4a of standard:</p> <table><tr><th rowspan="2">Type of Mark</th><th colspan="2">Lenses & Replacement Lenses</th><th rowspan="2">Frame</th><th rowspan="2">Complete Device (no replaceable parts)</th></tr><tr><th>Spectacles</th><th>All Other</th></tr><tr><td colspan="5"><i>All Protectors shall bear the markings below:</i></td></tr><tr><td>Mfg Mark or Logo</td><td>Yes</td><td>Yes</td><td>Yes</td><td>Yes</td></tr><tr><td>Standard – Plano</td><td rowspan="2"></td><td>Z87</td><td>Z87</td><td>Z87</td></tr><tr><td>Standard – Rx</td><td>Z87</td><td>Z87-2</td><td>Z87-2</td></tr><tr><td>Coverage (small head)</td><td>H</td><td></td><td>H</td><td></td></tr><tr><td colspan="5"><i>The following markings shall be required only when claims are made:</i></td></tr><tr><td>Impact Mark –Impact rated Plano</td><td>+</td><td>Z87+</td><td>Z87+</td><td>Z87+</td></tr><tr><td>Impact Mark – Impact rated Rx</td><td>+</td><td>Z87+</td><td>Z87-2+</td><td>Z87-2+</td></tr><tr><td>Lens Type – Clear</td><td colspan="4"></td></tr><tr><td>Lens Type - Welding</td><td>W shade</td><td>W shade</td><td rowspan="6"></td><td>W shade</td></tr><tr><td>Lens Type – UV Filter</td><td>U scale #</td><td>U scale #</td><td>U scale #</td></tr><tr><td>Lens Type – Visible Light Filter</td><td>L scale #</td><td>L scale #</td><td>L scale #</td></tr><tr><td>Lens Type – IR Filter</td><td>R scale #</td><td>R scale #</td><td>R scale #</td></tr><tr><td>Lens Type – Variable Tint</td><td>V</td><td>V</td><td>V</td></tr><tr><td>Special Purpose</td><td>S</td><td>S</td><td>S</td></tr><tr><td>Use- Splash / Droplet</td><td rowspan="3"></td><td rowspan="3"></td><td>D3</td><td>D3</td></tr><tr><td>Use – Dust</td><td>D4</td><td>D4</td></tr><tr><td>Use – Fine Dust</td><td>D5</td><td>D5</td></tr></table>			Type of Mark	Lenses & Replacement Lenses		Frame	Complete Device (no replaceable parts)	Spectacles	All Other	<i>All Protectors shall bear the markings below:</i>					Mfg Mark or Logo	Yes	Yes	Yes	Yes	Standard – Plano		Z87	Z87	Z87	Standard – Rx	Z87	Z87-2	Z87-2	Coverage (small head)	H		H		<i>The following markings shall be required only when claims are made:</i>					Impact Mark –Impact rated Plano	+	Z87+	Z87+	Z87+	Impact Mark – Impact rated Rx	+	Z87+	Z87-2+	Z87-2+	Lens Type – Clear					Lens Type - Welding	W shade	W shade		W shade	Lens Type – UV Filter	U scale #	U scale #	U scale #	Lens Type – Visible Light Filter	L scale #	L scale #	L scale #	Lens Type – IR Filter	R scale #	R scale #	R scale #	Lens Type – Variable Tint	V	V	V	Special Purpose	S	S	S	Use- Splash / Droplet			D3	D3	Use – Dust	D4	D4	Use – Fine Dust	D5	D5
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Standard – Plano		Z87	Z87	Z87																																																																																					
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Impact Mark –Impact rated Plano	+	Z87+	Z87+	Z87+																																																																																					
Impact Mark – Impact rated Rx	+	Z87+	Z87-2+	Z87-2+																																																																																					
Lens Type – Clear																																																																																									
Lens Type - Welding	W shade	W shade		W shade																																																																																					
Lens Type – UV Filter	U scale #	U scale #		U scale #																																																																																					
Lens Type – Visible Light Filter	L scale #	L scale #		L scale #																																																																																					
Lens Type – IR Filter	R scale #	R scale #		R scale #																																																																																					
Lens Type – Variable Tint	V	V		V																																																																																					
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Use- Splash / Droplet			D3	D3																																																																																					
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Model No.:	Bronze	Standard:	ANSI/ISEA Z87.1-2010
Description:	Safety Spectacles with bronze mirror lenses		

Sample Control Number: 2012-07-252206

TRANSCRIBED TEST DATA

Type:	Spectacle: X	Goggle:	Faceshield:	WH Lenses:	FF Respirator:	Removable:
Style:	Plano: X	Rx:	Photochromatic:	Tinted: X	Clear:	Non-Removable: X

Section 6, Impact Protector Requirements (Z87+)

Section (Test)	Requirement	Results	Compliance																																				
6	Impact Protector Requirements (Z87+)																																						
6.1	General																																						
6.1.1	Impact Rated Protectors: Shall meet the impact requirements and be marked per Tables 4a and 4b of the standard.	Information only																																					
6.1.2	Frames and Shells	Tested as a complete device, see test sections 6.2.2 and 6.2.3																																					
6.1.3 (9.10)	Lateral (side) Coverage: Impact rated protectors shall provide continuous lateral coverage (i.e. no openings greater than 1.5 mm (.06 in.) in diameter) from the edge of the lens 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.) above and not less than 10 mm (0.394 in.) below the horizontal plane centered on the eyes of the headform.	<table><tr><td>Sample #:</td><td>2</td></tr><tr><td>Location</td><td>Coverage</td></tr><tr><td>0° Right (random) 10 mm above</td><td>YES</td></tr><tr><td>90° Right 10mm above</td><td>YES</td></tr><tr><td>90° Left 10mm above</td><td>YES</td></tr><tr><td>0° Left (random) 10mm below</td><td>YES</td></tr><tr><td>90° Right 10mm below</td><td>YES</td></tr><tr><td>90° Left 10mm below</td><td>YES</td></tr></table>	Sample #:	2	Location	Coverage	0° Right (random) 10 mm above	YES	90° Right 10mm above	YES	90° Left 10mm above	YES	0° Left (random) 10mm below	YES	90° Right 10mm below	YES	90° Left 10mm below	YES	PASS																				
Sample #:	2																																						
Location	Coverage																																						
0° Right (random) 10 mm above	YES																																						
90° Right 10mm above	YES																																						
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0° Left (random) 10mm below	YES																																						
90° Right 10mm below	YES																																						
90° Left 10mm below	YES																																						
6.2	Impact Requirements																																						
6.2.1	Protector Acceptance Criteria	See sections 6.2.2, 6.2.3, 6.2.4, 6.2.6	Info only																																				
6.2.2 (9.11)	High Mass Impact: The complete device shall be capable of resisting an impact from a pointed projectile. A complete device shall fail if any of the following occurs; piece fully detached from inner surface, fracture, penetration of the rear surface, lens not retained. <table><tr><th colspan="3">Impactor- Pointed Projectile</th></tr><tr><td></td><td>Required</td><td>Actual</td></tr><tr><td>Weight, (grams)</td><td>500</td><td>502</td></tr><tr><td>Drop Height, cm (inch)</td><td>127 (50’’) </td><td>50’’</td></tr></table>	Impactor- Pointed Projectile				Required	Actual	Weight, (grams)	500	502	Drop Height, cm (inch)	127 (50’’)	50’’	<table><tr><th colspan="3">Laboratory Conditions:</th></tr><tr><td>Req’d:</td><td>Temperature Range 18-28 °C (65-82 °F)</td><td>Humidity Range 35-65 %</td></tr><tr><td>Actual:</td><td>70</td><td>53</td></tr></table> <table><tr><th>Sample 9.11:</th><th>Impact eye Location</th><th>Fracture, penetration, etc</th></tr><tr><td>(1)</td><td>Left</td><td>NO</td></tr><tr><td>(2)</td><td>Left</td><td>NO</td></tr><tr><td>(3)</td><td>Right</td><td>NO</td></tr><tr><td>(4)</td><td>Right</td><td>NO</td></tr></table>	Laboratory Conditions:			Req’d:	Temperature Range 18-28 °C (65-82 °F)	Humidity Range 35-65 %	Actual:	70	53	Sample 9.11:	Impact eye Location	Fracture, penetration, etc	(1)	Left	NO	(2)	Left	NO	(3)	Right	NO	(4)	Right	NO	PASS
Impactor- Pointed Projectile																																							
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Weight, (grams)	500	502																																					
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Actual:	70	53																																					
Sample 9.11:	Impact eye Location	Fracture, penetration, etc																																					
(1)	Left	NO																																					
(2)	Left	NO																																					
(3)	Right	NO																																					
(4)	Right	NO																																					

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Client:	Vicsa Safety SA	Engineer:	Erik Sprague
Job No.:	G100789754	Tested By:	Erik Sprague
Product:	Spectacles	Reviewed By:	Sara Ensign
Model No.:	Bronze	Standard:	ANSI/ISEA Z87.1-2010
Description:	Safety Spectacles with bronze mirror lenses		

Sample Control Number: **2012-07-252206**

TRANSCRIBED TEST DATA

Type:	Spectacle: X	Goggle:	Faceshield:	WH Lenses:	FF Respirator:	Removable:
Style:	Plano: X	Rx:	Photochromatic:	Tinted: X	Clear:	Non-Removable: X

Section (Test)	Requirement	Results	Compliance																																																			
6	Impact Protector Requirements (Z87+)																																																					
6.2.3 (9.12)	<p>High Velocity Impact:</p> <p>The complete device shall be capable of resisting impact from a 6.35 mm (0.25 in) diameter steel ball traveling at the velocity specified in Table 5 (see Appendix A). No contact with the eye of the headform is permitted as a result of the impact.</p> <p>A complete device shall fail if any of the following occurs; piece fully detached from inner surface, fracture, penetration of the rear surface, lens not retained. For the high-velocity test, the unaided eye observes any piece adhering to the contact paste, or observes contact paste on the projectile or complete device.</p> <p><u>**Complete APPENDIX A prior to testing**</u></p> <table><tr><th colspan="3">Steel Ball</th></tr><tr><th></th><th>Required</th><th>Actual</th></tr><tr><td>Diameter, mm</td><td>6.35</td><td>6.34</td></tr><tr><td>Weight, grams</td><td>1.06</td><td>1.01</td></tr></table>	Steel Ball				Required	Actual	Diameter, mm	6.35	6.34	Weight, grams	1.06	1.01	<table><tr><th colspan="3">Laboratory Conditions:</th></tr><tr><td>Req'd:</td><td>Temperature Range 18-28 °C (65-82 °F)</td><td>Humidity Range 35-65 %</td></tr><tr><td>Actual:</td><td>70</td><td>55</td></tr></table> <table><tr><td>Sample #:</td><td>9.12</td></tr></table> <table><tr><th>#</th><th>Impact Location</th><th>Impact Velocity (ft/s)</th><th>Contact w/ eye</th></tr><tr><td>(1)</td><td>0° Rt. Eye</td><td>148.7</td><td>NO</td></tr><tr><td>(2)</td><td>30° Rt. Eye</td><td>149.1</td><td>NO</td></tr><tr><td>(3)</td><td>*90° Rt. Eye (above)</td><td>148.6</td><td>NO</td></tr><tr><td>(4)</td><td>0° Lt. Eye</td><td>150.4</td><td>NO</td></tr><tr><td>(5)</td><td>30° Lt. Eye</td><td>150.7</td><td>NO</td></tr><tr><td>(6)</td><td>*90° Lt. Eye (below)</td><td>150.6</td><td>NO</td></tr></table> <p>*10 mm above or below the plane of the eyes.</p>	Laboratory Conditions:			Req'd:	Temperature Range 18-28 °C (65-82 °F)	Humidity Range 35-65 %	Actual:	70	55	Sample #:	9.12	#	Impact Location	Impact Velocity (ft/s)	Contact w/ eye	(1)	0° Rt. Eye	148.7	NO	(2)	30° Rt. Eye	149.1	NO	(3)	*90° Rt. Eye (above)	148.6	NO	(4)	0° Lt. Eye	150.4	NO	(5)	30° Lt. Eye	150.7	NO	(6)	*90° Lt. Eye (below)	150.6	NO	PASS
Steel Ball																																																						
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Diameter, mm	6.35	6.34																																																				
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(1)	0° Rt. Eye	148.7	NO																																																			
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(4)	0° Lt. Eye	150.4	NO																																																			
(5)	30° Lt. Eye	150.7	NO																																																			
(6)	*90° Lt. Eye (below)	150.6	NO																																																			
6.2.4 (9.13)	<p>Penetration Test (lenses only):</p> <p>Lenses for all complete devises shall be capable of resisting penetration by a weighted needle.</p> <p>A complete device shall fail if any of the following occurs; piece fully detached from inner surface, fracture, penetration of the rear surface, lens not retained.</p> <table><tr><th colspan="3">Needle Penetrator</th></tr><tr><th></th><th>Required</th><th>Actual</th></tr><tr><td>Weight, grams</td><td>44.2</td><td>43.95</td></tr><tr><td>Drop Height, cm (inch)</td><td>127 (50")</td><td>50"</td></tr></table>	Needle Penetrator				Required	Actual	Weight, grams	44.2	43.95	Drop Height, cm (inch)	127 (50")	50"	<table><tr><th colspan="3">Laboratory Conditions:</th></tr><tr><td>Req'd:</td><td>Temperature Range 18-28 °C (65-82 °F)</td><td>Humidity Range 35-65 %</td></tr><tr><td>Actual:</td><td>70</td><td>53</td></tr></table> <table><tr><th>Sample 9.13:</th><th>Impact eye Location</th><th>Penetration</th></tr><tr><td>(1)</td><td>Left</td><td>NO</td></tr><tr><td>(2)</td><td>Left</td><td>NO</td></tr><tr><td>(3)</td><td>Right</td><td>NO</td></tr><tr><td>(4)</td><td>Right</td><td>NO</td></tr></table>	Laboratory Conditions:			Req'd:	Temperature Range 18-28 °C (65-82 °F)	Humidity Range 35-65 %	Actual:	70	53	Sample 9.13:	Impact eye Location	Penetration	(1)	Left	NO	(2)	Left	NO	(3)	Right	NO	(4)	Right	NO	PASS															
Needle Penetrator																																																						
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(1)	Left	NO																																																				
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INTERTEK TEST DATA SHEETS

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Client: Vicsa Safety SA Engineer: Erik Sprague

Job No.: G100789754 Tested By: Erik Sprague Date: 10/04/12-10/09/12

Product: Spectacles Reviewed By: Sara Ensign Date: 10/16/12

Model No.: Bronze Standard: ANSI/ISEA Z87.1-2010

Description: Safety Spectacles with bronze mirror lenses

Sample Control Number: **2012-07-252206**

TRANSCRIBED TEST DATA

Type:	Spectacle: X	Goggle:	Faceshield:	WH Lenses:	FF Respirator:	Removable:
Style:	Plano: X	Rx:	Photochromatic:	Tinted: X	Clear:	Non-Removable: X

Section (Test)	Requirement	Results	Compliance
6	Impact Protector Requirements (Z87+)		
6.2.5 (9.14)	Prescription Lens Material Qualification	Not this type	NA
6.2.6 (9.11)	Prescription Lens Mounting Qualification A complete device shall fail if any of the following occurs; piece fully detached from inner surface, fracture, penetration of the rear surface, lens not retained.	Not this type	NA