

Third Party Certificate of Test
ANSI/ISEA 107-2010
HIGH VISIBILITY COMPLIANCE

Submitted by: Portwest LLC
Style #: S388, Bib & Brace, Size: Medium
Color Yellow W/Silver

Date: November 4, 2015

Test Report #: PORTWE.A100115D

The submitted Garment, **Size M**, **MEETS** the requirements of ANSI 107-2010 Specification for the tests conducted in this report covering **Class E Level 2 Garments**. The submitted Garment, **Size L Class E Apparel**, is not intended to be worn without Performance Class 2 or 3 Apparel. The Overall classification for the ensemble shall be Performance Class 3.

All of the above tests and evaluations were performed in accordance with ISO/IEC 17025 Quality Systems.

Certification of background and retroreflective material characteristics is not implied by this certificate or by the original report.



Authorized by:



Adam R. Varley
Technical Director



ISO/IEC 17025 Certified Third Party Test Report

DATE: November 4, 2015

FILE: PORTWE.A100115D

CLIENT: Portwest LLC.
1272 Omega Parkway
Shepherdsville, KY 40165, USA

ATTN: Erin Moroney

SAMPLE IDENTIFIED BY CLIENT AS:

Garment Submitted
Per ANSI/ISEA 107-2010 Specification
Style #: S388, Bib & Brace, Size: Medium
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EXECUTIVE SUMMARY

The submitted Garment, **Size M, MEETS** the requirements of ANSI 107-2010 Specification for the tests conducted in this report covering **Class E Level 2 Garments**. The submitted Garment, **Size L Class E Apparel**, is not intended to be worn without Performance Class 2 or 3 Apparel. The Overall classification for the ensemble shall be Performance Class 3.

Evaluation and Compliance of the background and retroreflective material characteristics is not implied by this report.

Section	Requirement	Test Result	Pass, Fail, or N/A
6.	Design		
6.1	Garment Requirements		
	Apparel and headgear shall incorporate the minimum areas of materials specified in Table 1.		
	Background material:		
	Performance Class 3 0.8 m ² (1240 in ²)	m ² (in ²)	N/A
	Performance Class 2 0.50 m ² (775 in ²)	m ² (in ²)	N/A
	Performance Class 1 0.14 m ² (217 in ²)	m ² (in ²)	N/A
	Class E 0.30 m ² (465 in ²)	1.27 m ² (1965.33 in ²)	PASS
	Headwear 0.05 m ² (78 in ²)	m ² (in ²)	N/A
	Retroreflective or combined-performance material with background material:		
	Performance Class 3 0.2 m ² (310 in ²)	m ² (in ²)	N/A
	Performance Class 2 0.13 m ² (201 in ²)	m ² (in ²)	N/A
	Performance Class 1 0.10 m ² (155 in ²)	m ² (in ²)	N/A
	Class E 0.07 m ² (108 in ²)	0.19 m ² (291.14 in ²)	PASS
	Headwear 0.0065 m ² (10 in ²)	m ² (in ²)	N/A
	Combined-performance material used without background material:		
	Performance Class 1 0.20 m ² (310 in ²)	m ² (in ²)	N/A
	Headwear 0.05 m ² (78 in ²)	m ² (in ²)	N/A
6.1.1	Retroreflective or Combined-Performance Materials		

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6.1.1.1	Logos, design icons or identification text shall be distributed within an area of "non-compliant" background materials.	Not Present	N/A
	A minimum of 50 percent of the area making up the bands or patterns shall be composed of combined-performance or retroreflective materials per Table 4 or 5.		N/A
6.1.1.2	For Performance Class 3, shall not be less than 50 mm (1.97 in.) wide.	50mm (1.98 in)	PASS
6.1.1.3	For Performance Class 2, shall not be less than 35 mm (1.38 in.) wide.		N/A
6.1.1.4	For Performance Class 1, where retroreflective material is used in conjunction with specified background material, the bands of retroreflective or combined-performance material incorporated into the garment shall not be less than 25 mm (0.98 in.) wide.		N/A
	If the Performance Class 1 garment is constructed without background material, or without background material, the bands of combined-performance material incorporated into the garment shall not be less than 50 mm (1.97 in.) wide.		N/A
6.1.2	The minimum distance between multiple bands of retroreflective or combined-performance material shall be at least equal to the width of the band.	Present 57.15 mm (2.25 in)	PASS
6.1.3	Horizontal bands of retroreflective or combined-performance material near the bottom edge of a jacket, vest, or poncho, shall not be placed less than 50 mm (1.97 in.) above the bottom edge of the garment.		N/A
6.1.4	Placement of retroreflective or combined-performance materials on Full-Length Sleeves		N/A
6.1.4.1	Horizontal bands shall encircle the arm (or ref 6.1.7.).		N/A
6.1.4.2	Upper band placement shall be between the elbow and the shoulder.		N/A
	Lower edge of lower sleeve band shall not be less than 50 mm (1.97 in.) from the bottom of the sleeve.		N/A

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6.1.5	Gaps in retroreflective, combined-performance, and background materials shall not be more than 50 mm (1.97 in.) horizontally.	Not Present	PASS
6.1.6	360° Visibility Performance Class 1, 2 or 3 apparel, such as vests, waistcoats, jackets, ponchos, and coveralls, shall have areas of retroreflective or combined-performance materials placed in such a manner to provide 360° visibility of the wearer at all viewing angles in a horizontal plane. Headwear shall have background material and retroreflective or combined performance and background materials placed in such a manner to provide 360° visibility of the wearer.		PASS
6.1.7	Shoulder Area Garments without retroreflective or combined-performance material that encircles the arm shall have a minimum of 150 cm ² (23.25 in. ²) of retro-reflective material or combined performance material in the shoulder area to provide 180° visibility of the wearer.		N/A
6.1.8	Placement of Materials on Legs		N/A
6.1.8.1	Coveralls, trousers, shorts and bib overalls shall have areas of retroreflective or combined-performance materials encircling each leg so as to provide 360° visibility of the wearer at all viewing angles in a horizontal plane.	Present	PASS
6.1.8.2	Retroreflective or combined-performance materials on the legs shall placed 50 mm (1.97 in.) or more above the bottom edge of the leg.	125.4125mm (4.9375 in)	PASS
6.2	Apparel Design Configurations Shall be designed to permit maximum visibility of the wearer. (Refer to Appendix C for examples)		
6.2.1	Coveralls (e.g., have two horizontal bands of retroreflective material around the torso).		N/A
6.2.2	Jackets, waistcoats, vests and ponchos (e.g., one or more horizontal bands of retroreflective material around the torso and bands of retroreflective material joining the uppermost torso band from the front to the back over each shoulder).		N/A

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6.2.3	Garments with sleeves (e.g., two bands of retroreflective material should encircle the garment at the same height as those on the torso).		N/A
6.2.4	Coveralls, bib overalls and waistband trousers (e.g., two bands of retroreflective material, encircling horizontally each leg).	Present	PASS
6.2.5	Harnesses shall comprise a band of combined-performance materials encircling the waist and joining the waistband from the back to the front over both shoulders, the bands being not less than 50 mm (1.97 in.) wide.		N/A
6.3	Ergonomics		
	a. The materials and components of the garment shall not be known to adversely affect the wearer		PASS
	b. The garment shall offer the wearer the best possible degree of comfort that is consonant with the provision of adequate protection		PASS
	c. Parts of the garment that come into contact with the end user shall be free of roughness, sharp edges and projections that could cause irritation or injuries		PASS
	d. The garment shall be designed for correct fit and positioning on the user and should be designed to ensure that it remains in place for the expected period of use, anticipating environmental factors as well as movements the wearer could adopt during the course of work		PASS
10.	Care Labeling Washing or cleaning instructions shall be indicated in accordance with ASTM D5489-07, Standard Guide for Care Symbols for Care Instructions on Textile Products, as relevant.	Information Submitted for Label: 	PASS

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10.	The maximum number of processes for the finished item shall be stated after 'maximum' next to the care labeling.	Present 25 cleaning cycles.	PASS
11.	Marking		
11.1	General Marking shall be		
	on the product itself or on labels attached to the product;	Present	PASS
	permanently affixed so as to be visible and legible;	Present	PASS
	durable for the appropriate number of cleaning processes.	Present	PASS
	NOTE: The use of numbers not smaller than 2 mm (0.08 in.) and pictograms not smaller than 10 mm (0.39 in.) is recommended. Numbers and pictograms are recommended to be black on white background	Present	PASS

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Section	Requirement	Test Result	Pass, Fail, or N/A
11.2	Specific Marking shall include the following information:		
	a. Name, trademark or other means of identification of the manufacturer or authorized representative	Information Submitted for Label: 	PASS
	b. Designation of the product type commercial name or code	Present: 	PASS

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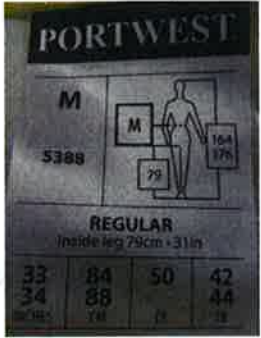

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11.2	c. Size designation (not required for headwear)	Present:: 	PASS
	d. Number of this specific ANSI standard (ANSI/ISEA 107-2010)	Information Submitted for Label	PASS
	e. flame resistance compliance: (1) The letters FR on the label that indicates compliance with ANSI/ISEA 107 followed by the designation of the specific ASTM standard used to evaluate flame resistance; or (2) Attach a separate label indicating certification to NFPA 1971, 1977 or 2112.		N/A
	f. Pictogram showing the Performance Class and Level of photometric performance of the retroreflective or combined-performance material (see Figure 2). (Not required for headwear).	Information Submitted for Label	PASS
	g. Pictogram may be either the universal representation (Figure 2) or an accurate drawing representing the specific garment.	Information Submitted for Label 	PASS

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11.2	NOTE: The first number beside the pictogram (X) indicates the garment Class in accordance with Table 1. The second number (Y) indicates the photometric performance Level of the material in accordance with Table 4 or 5. Garments shall be labeled with the lowest Level of material utilized to meet the minimum requirements of this standard	Information Submitted for Label	PASS																																				
12.	Instructions for Use																																						
12.1	Product Information																																						
	Garments shall be supplied to the customer with information written at least in the official language(s) of the state of destination	<p>Information Submitted for Label:</p> <div style="border: 1px solid black; padding: 5px;"> <p>Recommended maximum continuous wearing time For a complete suit consisting of jacket and trousers without a thermal lining.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">EN 343 : 2003</th> </tr> <tr> <th></th> <th colspan="3">Duration of Wearing (in minutes)</th> </tr> <tr> <th>Temp:</th> <th>Class 1</th> <th>Class 2</th> <th>Class 3</th> </tr> </thead> <tbody> <tr> <td>Temperature of working environment</td> <td></td> <td></td> <td></td> </tr> <tr> <td>25°C</td> <td>60</td> <td>100</td> <td>200</td> </tr> <tr> <td>20°C</td> <td>75</td> <td>250</td> <td>---</td> </tr> <tr> <td>15°C</td> <td>100</td> <td>---</td> <td>---</td> </tr> <tr> <td>10°C</td> <td>240</td> <td>---</td> <td>---</td> </tr> <tr> <td>5°C</td> <td>---</td> <td>---</td> <td>---</td> </tr> </tbody> </table> <p>--- means: no limit for wearing time</p> <p>Water Vapour Permeability effect for coated fabrics or laminates in different ambient temperatures</p> <p>Limitations Of Use (EN ISO 20471:2013) : Always wear the garment fastened. Keep clean : Should the High Visibility properties of this garment become irrecoverably soiled or contaminated, replace with a new one. This garment is suitable for wear during an entire working day and contains no toxic substances that can affect health adversely in any other way. No allergic reactions due to skin contact with this garment are known. Do not attempt to repair damaged garments. All garments should be discarded safely. The clothing should not be altered or filtered with extra labels or logos. The clothing should only be worn in situations for which it is intended.</p> <p>Retroreflective tape or labels should not be ironed! Please refer to the garment label for the number and wash cycles claimed. The stated maximum number of cleaning cycles is not the only factor related to the lifetime of the garment. The lifetime will also depend on usage , care storage, etc. Garments should be discarded when the protective qualities no longer apply eg. 1. Maximum number of washes is reached. 2. The material has been damaged either by fading or has been torn. 3. The reflective qualities of the tape have faded.</p> </div>	EN 343 : 2003					Duration of Wearing (in minutes)			Temp:	Class 1	Class 2	Class 3	Temperature of working environment				25°C	60	100	200	20°C	75	250	---	15°C	100	---	---	10°C	240	---	---	5°C	---	---	---	PASS
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10°C	240	---	---																																				
5°C	---	---	---																																				
	The following minimum information shall be given: a. Fitting; how to put on and take off, if relevant b. Necessary warnings of misuse	Not Relevant	N/A																																				
		<p>Information Submitted for Label:</p> <div style="border: 1px solid black; padding: 5px;"> <p>Content Label : Refer to garment label for corresponding content details.</p> <p>Available Size & Selection : Fit according to correct chest and waist size, refer to size chart. These garments have a built in allowance for comfort and to allow the garment to be worn over medium bulky clothing.</p> <p>Warning: Where there is a hood, peripheral vision and hearing may be impaired.</p> <p>Storage : DO NOT store in places subject to direct or strong sunlight. Store in clean, dry conditions.</p> <p>After care : The manufacturer will not accept liability for garments where care labels have been ignored, defaced or removed.</p> </div>	PASS																																				

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12.1	c. Limitations on use	Information Submitted for Label	PASS
	d. Storage; how to store and maintain correctly, with maximum periods between maintenance checks	Information Submitted for Label	PASS
	e. maintenance and cleaning; how to clean or decontaminate correctly, with complete washing or dry cleaning instructions	Information Submitted for Label	PASS
	f. the number of cleaning processes without impairment of its performance level	Information Submitted for Label	PASS



Signed For The Company By

Adam R. Varley
Technical Director



Stacy Sadowy
Quality Assurance Supervisor

JG/10/51...JG/11