

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

Submitted by: Portwest LLC
Style #: H444, Hi Vis Rain Two Tone Trousers
Color Yellow W/Black/Silver

Date Issued: March 1, 2016
Date Revised: June 17, 2016

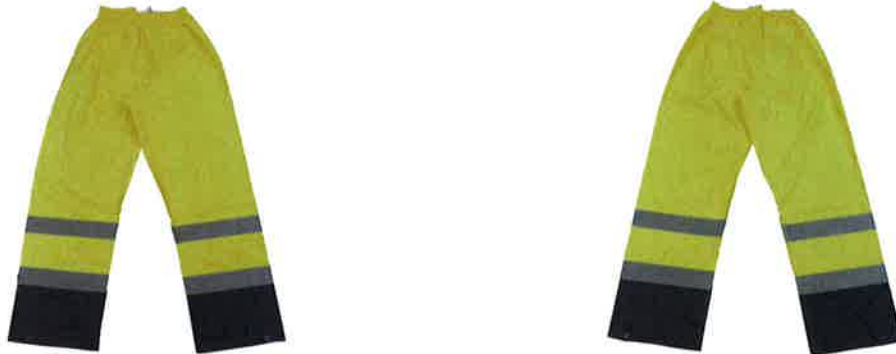
Test Report #: PORTWE.A012916B

The submitted Garment, **Size M**, **MEETS** the requirements of ANSI/ISEA 107-2010 Specification for the tests conducted in this report covering **Class E Level 2 Garments**. The submitted Garment, **Size M**, is to represent the smallest size designation for this style.

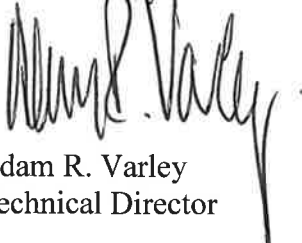
Class E Apparel is not intended to be worn without Performance Class 2 or 3 Apparel. The overall classification for the ensemble shall be Performance Class 3.

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: June 17, 2016 **FILE:** PORTWE.A012916B
CLIENT: Portwest LLC. **ATTN:** Catriona McNalley
 1272 Omega Parkway
 Shepherdsville, KY 40165, USA

SAMPLE IDENTIFIED BY CLIENT AS:

Garment Submitted
Per ANSI/ISEA 107-2010 Specification
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EXECUTIVE SUMMARY

The submitted Garment, **Size M**, **MEETS** the requirements of ANSI/ISEA 107-2010 Specification for the tests conducted in this report covering **Class E Level 2 Garments**. The submitted Garment, **Size M**, is to represent the smallest size designation for this style.

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)	1.00 m ² (1552.10in 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)	0.11 m ² (167.00 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

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6.1.1	Retroreflective or Combined-Performance Materials		
6.1.1.1	Logos, design icons or identification text shall be distributed within an area of “non-compliant” background materials.		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.		N/A
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: Distance between Bands: 98.55 mm (3.88 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
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

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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.		N/A
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		
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.		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.	152.4 mm (6.0 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
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

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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.	Present: 	PASS
	The maximum number of processes for the finished item shall be stated after 'maximum' next to the care labeling.	Maximum 25 Cycles	PASS

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11.	Marking		
11.1	General Marking shall be on the product itself or on labels attached to the product;	Information Submitted and Present	PASS
	permanently affixed so as to be visible and legible;		PASS
	durable for the appropriate number of cleaning processes.		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		PASS
11.2	Specific Marking shall include the following information: a. Name, trademark or other means of identification of the manufacturer or authorized representative	Present	PASS
	b. Designation of the product type commercial name or code	Present	PASS
	c. Size designation (not required for headwear)	Present: 	PASS
	d. Number of this specific ANSI standard (ANSI/ISEA 107-2010)	Information Submitted:	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

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11.2	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).	<p>Information Submitted:</p>	PASS
	g. Pictogram may be either the universal representation (Figure 2) or an accurate drawing representing the specific garment.	Information Submitted	PASS
	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		PASS

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Section	Requirement	Test Result	Pass, Fail, or N/A
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	Hand Tag	PASS
	The following minimum information shall be given:	Not Relevant	N/A
	a. Fitting; how to put on and take off, if relevant		PASS
	b. Necessary warnings of misuse		PASS
	c. Limitations on use		PASS
	d. Storage; how to store and maintain correctly, with maximum periods between maintenance checks		PASS
	e. maintenance and cleaning; how to clean or decontaminate correctly, with complete washing or dry cleaning instructions	Present	PASS
	f. the number of cleaning processes without impairment of its performance level	Present 25 Cycles Max	PASS

Signed For The Company By

Adam R. Varley
Technical Director

JG/02/43...JG/06

Stacy Sadowy
Stacy Sadowy
Quality Assurance Supervisor