

**Test Report** No.: HKSL1605070880TX Date: May 27, 2016 Page 1 of 4

Reflective Apparel Factory, Inc. 1649 Sands PL SE Ste. J Marietta, GA 30067

The following sample was submitted and identified by the client as:

One sample of woven 100% polyester 300D oxford with unbreathable coating cutting in Hi-Vis orange.

Applicant's Proposed Care Instruction

Machine wash cold water, delicate cycle, wash with like colors, mild detergent, no bleach, tumble dry low, remove immediately, do not iron, do not

dry clean, max 5 cycles.

Sample Receiving Date May 17, 2016

**Test Performing Period** May 18, 2016 - May 27, 2016

**Test Performed** Selected tests as requested by applicant.

(details please refer to result page)

**Test Results** Please refer to the next page.

Tested sample returned to applicant.

Signed for and on behalf of SGS Hong Kong Ltd.

Chan Hing Leung

Senior Technical Development Executive

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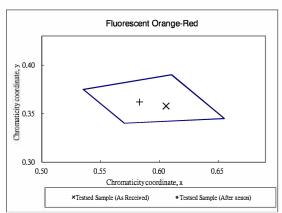
## **Test Results:**

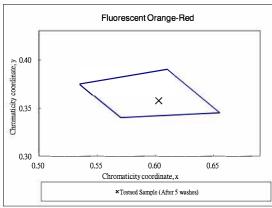
## <u>American National Standard for High-Visibility Safety Apparel and Accessories</u> (ANSI/ISEA 107-2015)

**Background Material** 

TESTS FOR ALL MATERIALS				
Test/Method	Section	ANSI/ISEA 107 Requirement	Test Result	Pass/ Fail/ NA
ASTM E1164-12	8.1.1 8.2.4 10.2	Test specimen must fulfill the colorimetric requirements of Table 3 for background material	As submitted: x = 0.605 y = 0.358	Pass
			%Y = 52	Pass
			After 40x Xenon: x = 0.583 y = 0.362	Pass
			%Y = 52	Pass
			After 5 washing <sup>#</sup> : x = 0.603 y = 0.358	Pass
			%Y = 52	Pass

<sup>\*</sup> Additional tests conducted upon client's request. Washing procedure (follow care label): AATCC 135-2012 Test No. (1)IIA(ii); Machine wash at 80 degree F with 1.8 kg total loading (Type 3 ballast + specimen) and 66±1g of 1993 AATCC Standard Reference detergent, normal cycle, tumble dry delicate less than 140 degree F





The chromaticity shall lie within one of the areas defined in ANSI/ISEA 107 Table 3 and the total luminance factor shall exceed the corresponding minimum in ANSI/ISEA 107 Table 3.

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Color of background material and combined-performance material

Color	Chromaticity coordinates		Minimum total luminance factor	
Coloi	Х	у	Y(%)	
Fluorescent orange-red	0.610	0.390		
	0.535	0.375	40	
	0.570	0.340	7 40	
	0.655	0.345		

TESTS FOR ALL MATERIALS (cont)					
Test/Method	Section	ANSI/ISEA 107 Requirement	Test Result	Pass/ Fail/ NA	
Colorfastness Crocking AATCC 8-2013	8.2.1	Dry 3.0 Wet 3.0	Dry: 4.5 Wet: 4.5	Pass	
Colorfastness Perspiration AATCC 15-2013	8.2.2	Color change 4.0 Staining 3.0	Color change: 4.5 Staining Acetate: 4.0 Cotton: 4.5 Nylon: 4.0 Polyester: 4.5 Acrylic: 4.5 Wool: 4.5	Pass	
Tear Resistance (Woven) ASTM D1424-09 (2013)	8.4.2	13 N (1326 gf) (2.92 lbf) Average force machine Average force cross-machine	35.5 N 34.6 N	Pass	

TESTS AS CARE LABEL DICTATES					
Test/Method	Section	ANSI/ISEA 107	7 Requirement	Test Result	Pass/ Fail/ NA
Colorfastness Domestic Laundry AATCC 61-2013-2A 105°F (modified)	8.2.3 Table 4	Color change Staining	4.5 3.0	Color change: 4.5 Staining Acetate: 4.5 Cotton: 4.5 Nylon: 4.0 Polyester:4.5 Acrylic: 4.5 Wool: 4.5	Pass
Colorfastness Water AATCC 107-2013	8.2.3 Table 4	Color change Staining	3.0 3.0	Color change: 4.5 Staining Acetate: 4.0 Cotton: 4.5 Nylon: 4.0 Polyester:4.5 Acrylic: 4.5 Wool: 4.5	Pass

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Dimensional change Domestic AATCC 135-2012 (3)IIIA(iii)@105°F	8.3.1	Knit or Coated, Non-Woven L +/- 7% W +/-5%	5 <sup>th</sup> Cycle Length = -0.8 Width = -0.8	Pass
Water Repellency AATCC 22-2010	8.5.1	90 new, 70 after 5 washings	New: 90  After 5 washings <sup>#</sup> : 90	Pass
Water Resistance AATCC 35-2013	8.5.2	≤ 1 gram of water penetration Level 1	New: 0 g  After 5 washings#: 0 g	Pass
Waterproof AATCC 127-2013	8.5.3	200 cm new and after 5 washings	New: exceed 500 cm After 5 washings <sup>#</sup> : exceed 500 cm	Pass

<sup>&</sup>lt;sup>#</sup> Additional tests conducted upon client's request. Washing procedure (follow care label): AATCC 135-2012 Test No. (1)IIA(ii); Machine wash at 80 degree F with 1.8 kg total loading (Type 3 ballast + specimen) and 66±1g of 1993 AATCC Standard Reference detergent, normal cycle, tumble dry delicate less than 140 degree F

\*\*\* End of Report \*\*\*

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