

Test Report No.: HKSL1605070897TX 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 breathable coating cutting in Hi-Vis yellow.

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sqs.com/en/Terms-and-Conditions/enrs-en-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advisual that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client's instructions, if any. The Company's sole responsibility is to its Client's instructions, and it is company in the limit of the limi



Test Report No.: HKSL1605070897TX Date: May 27, 2016 Page 2 of 4

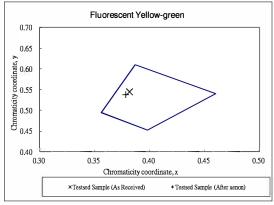
Test Results:

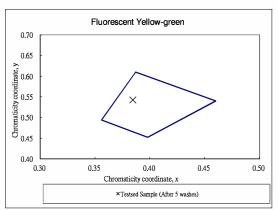
<u>American National Standard for High-Visibility Safety Apparel and Accessories</u> (ANSI/ISEA 107-2015)

Background Material

TESTS FOR ALL MATERIALS					
Test/Method	Section	ANSI/ISEA 107 Requirement	Test Result	Pass/ Fail/ NA	
Determination of Color ASTM E1164-12 (Single layer)	8.1.1 8.2.4 10.2	Test specimen must fulfill the colorimetric requirements of Table 3 for background material	As submitted: x = 0.382 y = 0.545	Pass	
			%Y = 116	Pass	
			After 40x Xenon: x = 0.378 y = 0.538	Pass	
			%Y = 111	Pass	
			After 5 washing#: x = 0.384 y = 0.543	Pass	
			%Y = 115	Pass	

[#] 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.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



Test Report No.: HKSL1605070897TX Date: May 27, 2016 Page 3 of 4

Color of background material and combined-performance material

2010) Or bashig taria material and combined performance material				
Color	Chromaticity coordinates		Minimum total luminance factor	
Coloi	Х	у	Y(%)	
Fluorescent yellow-green	0.387	0.610		
	0.356	0.494	70	
	0.398	0.452	70	
	0.460	0.540		

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: 4.5 Cotton: 4.5 Nylon: 4.5 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	38.7 N 40.6 N	Pass	

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: 4.0 Cotton: 4.5 Nylon: 3.0 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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sqs.com/en/Terms-and-Conditions/enrs-en-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advisual that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



Test Report No.: HKSL1605070897TX Date: May 27, 2016 Page 4 of 4

Dimensional change Domestic AATCC 135-2012 (3)IIIA(iii)@105°F	8.3.1	Knit or Coated, Non-Woven L +/- 7% W +/-5%	5 th Cycle Length = -0.8 Width = -0.4	Pass
Water Repellency AATCC 22-2010	8.5.1	90 new, 70 after 5 washings	New: 100 After 5 washings#:80	Pass
Water Resistance AATCC 35-2013	8.5.2	≤ 1 gram of water penetration Level 1	New: 0 g After 5 washings [#] : 0.1 g	Pass
Waterproof AATCC 127-2013	8.5.3	200 cm new and after 5 washings	New: exceed 500 cm After 5 washings#: exceed 500 cm	Pass
Breathability ASTM E96-13 Procedure B or BW	8.6	Procedure BW 3600 g/m²/24 hr hydrophilic	4310	Pass

*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 ***

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sqs.com/en/Terms-and-Conditions/enrs-en-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advisual that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client's instructions, if any. The Company's sole responsibility is to its Client's instructions, and it is company in the limits of Client's instructions, if any. The Company's sole responsibility is to its Client's instructions, and it is company in the limit of the transaction documents. This document cannot be reproduced except in full, without approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.