



## Test Report

No.: HKSL1603039114TX-01

Date: Apr 14, 2016

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**This report supersedes all previous documents bearing the test report number HKSL1603039114TX dated Apr 07, 2016.**

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

***One sample of reflective tape D1002 (backing:100% polyester) in grey.***

Application No.	:	2174906
Applicant's Proposed Care Instruction	:	Machine wash warm, 40 °C Only non-chlorine bleach when needed Tumble dry low Use medium iron, 150 °C Dry-clean, normal cycle
Sample Receiving Date	:	Mar 30, 2016
Test Performing Period	:	Mar 31, 2016 – Apr 14, 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 :**

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

**Combined-Performance and Retroreflective Material Testing Report**

PHOTOMETRIC PERFORMANCE REQUIREMENTS					
Take measurements at $\epsilon_1 = 0^\circ$ and $\epsilon_2 = 90^\circ$ . Record maximum value on left side of test result column and the other value on right side of test result column.					
ANSI/ISEA 107-2015 Requirement Section 9.1, Table 5			Test Result cd/(lx·m <sup>2</sup> )		Pass/ Fail
Observation Angle	Entrance Angle	Minimum cd/(lx·m <sup>2</sup> )			
12' (0.2°)	5°	330 / 248	428	427	Pass
	20°	290 / 218	450	449	Pass
	30°	180 / 135	456	455	Pass
	40°	65 / 47	430	421	Pass
20' (0.33°)	5°	250 / 188	326	325	Pass
	20°	200 / 150	338	337	Pass
	30°	170 / 128	343	341	Pass
	40°	60 / 45	327	324	Pass
1.0°	5°	25 / 18.8	31	31	Pass
	20°	15 / 11.3	32	31	Pass
	30°	12 / 9	31	30	Pass
	40°	10 / 7.5	31	29	Pass
1.5°	5°	10 / 7.5	22	22	Pass
	20°	7 / 5.25	22	22	Pass
	30°	5 / 3.75	22	21	Pass
	40°	4 / 3	21	21	Pass

PHYSICAL PERFORMANCE REQUIREMENTS				
Test	Section	ANSI/ISEA 107 Requirement	Test Result	Pass/ Fail
Retroreflection, after abrasion	9.2, 10.4.1	R <sub>A</sub> (0.2°/5°) > 100 cd/(lx·m <sup>2</sup> ) at $\epsilon_1$ R <sub>A</sub> (0.2°/5°) > 75 cd/(lx·m <sup>2</sup> ) at $\epsilon_2$	$\epsilon_1$ :430 $\epsilon_2$ :429	Pass
Retroreflection, after flexing	9.2, 10.4.2	R <sub>A</sub> (0.2°/5°) > 100 cd/(lx·m <sup>2</sup> ) at $\epsilon_1$ R <sub>A</sub> (0.2°/5°) > 75 cd/(lx·m <sup>2</sup> ) at $\epsilon_2$	$\epsilon_1$ :423 $\epsilon_2$ :423	Pass
Retroreflection, after folding at cold temperatures	9.2, 10.4.3	R <sub>A</sub> (0.2°/5°) > 100 cd/(lx·m <sup>2</sup> ) at $\epsilon_1$ R <sub>A</sub> (0.2°/5°) > 75 cd/(lx·m <sup>2</sup> ) at $\epsilon_2$	$\epsilon_1$ :434 $\epsilon_2$ :434	Pass
Retroreflection, after exposure to temperature variation	9.2, 10.4.4	R <sub>A</sub> (0.2°/5°) > 100 cd/(lx·m <sup>2</sup> ) at $\epsilon_1$ R <sub>A</sub> (0.2°/5°) > 75 cd/(lx·m <sup>2</sup> ) at $\epsilon_2$	$\epsilon_1$ :443 $\epsilon_2$ :442	Pass
Retroreflection, after 30 washing	9.2, 10.4.5	R <sub>A</sub> (0.2°/5°) > 100 cd/(lx·m <sup>2</sup> ) at $\epsilon_1$ R <sub>A</sub> (0.2°/5°) > 75 cd/(lx·m <sup>2</sup> ) at $\epsilon_2$	$\epsilon_1$ :232 $\epsilon_2$ :229	Pass
Retroreflection, after 5 dry cleaning	Ref. 9.2, 10.4.5	R <sub>A</sub> (0.2°/5°) > 100 cd/(lx·m <sup>2</sup> ) at $\epsilon_1$ R <sub>A</sub> (0.2°/5°) > 75 cd/(lx·m <sup>2</sup> ) at $\epsilon_2$	$\epsilon_1$ :458 $\epsilon_2$ :456	Pass
Retroreflection in rainfall	9.2, 10.4.6	R <sub>A</sub> (0.2°/5°) > 100 cd/(lx·m <sup>2</sup> ) at $\epsilon_1$ R <sub>A</sub> (0.2°/5°) > 75 cd/(lx·m <sup>2</sup> ) at $\epsilon_2$	$\epsilon_1$ :143 $\epsilon_2$ :143	Pass

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

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