

Textile Laboratory

Test Report


No: TX81391 /2016 /SP

Date: Aug. 26, 2016

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Asia Sun (Taiwan) Inc.  
No.49,Jingjian 1st Rd., Guanyin Dist.,  
Taoyuan City 328, Taiwan (R.O.C.)

The following sample was submitted and identified by applicant as:

- Sample Description : One sample of woven silver reflective fabric
- Color : Silver
- Style No. : AB-8910(AB-0010H)
- Applicant : Asia Sun (Taiwan) Inc.
- Sample Receiving Date : Aug. 16, 2016
- Test Performance Period : Aug. 16, 2016 to Aug. 26, 2016
- Client's Provided Care Label : 
- Test Performed : Selected test(s) as requested by applicant.
- Test Results : For further details, please refer to the following page(s).

\* Residual sample returned to applicant.

Signed for and on behalf of  
SGS Taiwan Ltd.

  
Lin Yi Wen, Vicky  
Test Specialist

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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**

<b>PHOTOMETRIC PERFORMANCE REQUIREMENTS</b>					
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.					
<b>ANSI/ISEA 107-2015 Requirement Section 9.1, Table 5</b>			<b>Test Result cd/(lx·m<sup>2</sup>)</b>		<b>Pass/ Fail</b>
Observation Angle	Entrance Angle	Minimum cd/(lx·m <sup>2</sup> )			
12' (0.2°)	5°	330 / 248	547	545	Pass
	20°	290 / 218	486	476	Pass
	30°	180 / 135	437	417	Pass
	40°	65 / 47	396	365	Pass
20' (0.33°)	5°	250 / 188	377	375	Pass
	20°	200 / 150	349	343	Pass
	30°	170 / 128	327	310	Pass
	40°	60 / 45	301	279	Pass
1.0°	5°	25 / 18.8	41	40	Pass
	20°	15 / 11.3	32	31	Pass
	30°	12 / 9	25	24	Pass
	40°	10 / 7.5	23	22	Pass
1.5°	5°	10 / 7.5	18	18	Pass
	20°	7 / 5.25	18	17	Pass
	30°	5 / 3.75	19	18	Pass
	40°	4 / 3	18	17	Pass

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Test Results:

PHYSICAL PERFORMANCE REQUIREMENTS				
Test	Section	ANSI/ISEA 107 Requirement	Test Result	Pass/ Fail
Retroreflection, after abrasion	9.2, 10.4.1	$R_A(0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_1$ $R_A(0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_2$	$\epsilon_1$ :494 $\epsilon_2$ :489	Pass
Retroreflection, after flexing	9.2, 10.4.2	$R_A(0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_1$ $R_A(0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_2$	$\epsilon_1$ :528 $\epsilon_2$ :516	Pass
Retroreflection, after folding at cold temperatures	9.2, 10.4.3	$R_A(0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_1$ $R_A(0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_2$	$\epsilon_1$ :544 $\epsilon_2$ :542	Pass
Retroreflection, after exposure to temperature variation	9.2, 10.4.4	$R_A(0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_1$ $R_A(0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_2$	$\epsilon_1$ :549 $\epsilon_2$ :547	Pass
Retroreflection, after 50 washing	9.2, 10.4.5	$R_A(0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_1$ $R_A(0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_2$	$\epsilon_1$ :239 $\epsilon_2$ :236	Pass
Retroreflection, after 25 dry cleaning	Ref. 9.2, 10.4.5	$R_A(0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_1$ $R_A(0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_2$	$\epsilon_1$ :552 $\epsilon_2$ :551	Pass
Retroreflection in rainfall	9.2, 10.4.6	$R_A(0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_1$ $R_A(0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at $\epsilon_2$	$\epsilon_1$ :164 $\epsilon_2$ :163	Pass

Tested by relevant SGS laboratory.

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

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