



## Test Report

No.: HKSL1401001146TX

Date: Jan 13, 2014

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AMERICAN RECREATION PRODUCTS LLC.  
ROOM 2501 - 2505 LEVER TECH CENTRE  
NO. 69-71 KING YIP STREET  
KWUN TONG  
,KOWLOON,HONG KONG

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

One sample of woven nylon ZYJ121011-1F27 ventwall - nylon ripstop, silicone/PU cutting in olive.

Buyer : Sierra Designs  
End Use : Tent Fly  
Style No. : Backcountry Bivy  
Manufacturer : T&A  
Country Of Origin : Taiwan  
Country Of Destination : United States  
Applicant's Proposed Care Instruction : Machine Wash In Cold, Tumble Dry 60 Celsius, Do Not Iron.  
Sample Receiving Date : Jan 03, 2014  
Test Performing Period : Jan 03, 2014 – Jan 13, 2014  
Test Performed : Selected test(s) as requested by applicant (details please refer to result page(s)).

Tested and residual samples returned to applicant.

Signed for and on behalf of  
SGS Hong Kong Ltd.

Chau Shui King, Ginny  
Assistant Account Manager

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**Test Results :**

**Colour Fastness To Washing**

(Ref. AATCC 61-2010; Test No. 2A, 45 min. Mechanical wash at 105 degree F in 0.15% 1993 AATCC Standard Reference detergent 'WOB' solution with 50 steel balls)

		<u>Specified Requirement</u>
Change in shade	4.5*	/
Staining on multifibre stripe		
Acetate	4.5	/
Cotton	4.5	
Nylon	4.5	
Polyester	4.5	
Acrylic	4.5	
Wool	4.5	

\*Spots were found

**Colour Fastness To Light** (AATCC 16-2004 Option 3; Xenon-Arc Lamp)

		<u>Specified Requirement</u>
After 20 'AATCC' Fading Unit		
Class	4.5	/

Remarks: Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.

**Fabric Weight Per Unit Area** (ASTM D3776/D3776M-2009ae2; Option C)

		<u>Specified Requirement</u>
(oz/sq.yd.)	1.73	/
(g/sq.m.)	58.7	

**Tearing Strength** (ASTM D1424-2009; Elmendorf)

		<u>Specified Requirement</u>
Warp yarns torn (lb)	3.5	/
Weft yarns torn (lb)	2.5	

Remarks : Full scale range of pendulum for warp yarn testing is 7.2 lb.  
Full scale range of pendulum for weft yarn testing is 7.2 lb.

**Puncture Resistance**

		<u>Specified Requirement</u>
(lb)	9.7	/

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### Water Repellency

(AATCC 22-2010; Spray Test – Tested under controlled condition, water temperature: 27±1 °C)

Specified  
Requirement

#### As received

Rating

Individual reading 1	90	/
Individual reading 2	90	
Individual reading 3	90	

#### After 10 wash \*

Rating

Individual reading 1	80	/
Individual reading 2	80	
Individual reading 3	80	

Remarks :

Nomenclature for rating :

- 100 – No sticking or wetting of the specimen face
- 90 – Slight random sticking or wetting of the specimen face
- 80 – Wetting of specimen face at spray points
- 70 – Partial wetting of the specimen face beyond the spray points
- 50 – Complete wetting of the entire specimen face beyond the spray points
- 0 – Complete wetting of the entire face of the specimen

\* Washing procedures:

(AATCC 135-2012 Option Test No.1 II A (ii); Machine wash at 80 degree F with 1.8 kg total loading (Type 3 ballast + specimen) and 66 ± 1 g of 1993 AATCC Standard Reference detergent, normal cycle, tumble dry normal at 150 ±10 degree F, do not iron

**Drying Rate** (Ref. JIS L1096:2010; Section 8.25)

After 60 min.

(%) 97.2 /

### Water Resistance

(JIS L1092-2009 Method A; 60cm/ min; Low hydraulic pressure method)

Specified  
Requirement

Water column (mm)	3430.0	/
Water column (cm)	343.0	

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**Flame-Resistance Test** (CAN/CGSB-4.2 NO.27.5-2008)

Fabric Surface : Smooth  
Preliminary Testing : Length 8.1 sec BB Width 9.1 sec BB

Test sample direction performance: Length

Sample:

	Original State			After Drycleaning & Washing *		Requirement
	Flame Spread (sec.)	Burn Code		Flame Spread (sec.)	Burn Code	
(1)	8.2	BB	(1)	8.1	BB	
(2)	7.6	BB	(2)	9.8	BB	
(3)	7.9	BB	(3)	9.6	BB	> 3.5 sec
(4)	8.5	BB	(4)	8.4	BB	
(5)	8.8	BB	(5)	8.8	BB	
Avg.	8.2	sec for 5 specimens	Avg.	8.9	sec for 5 specimens	

Burning Codes

BB = Base Burns

Cleaning procedure

\* Washing and dry cleaning in accordance with CAN/CGSB-4.2 No.30.3-94

Comment

The submitted sample complies with the flammability requirements for general textile products (other than children's sleepwear) under clause 4, item (1) of Textile Flammability Regulations (SOR/2011-22) of Canada.

**Flammability Test for Wall & Top Materials of Camping Tentage Products (CPAI-84:1995; Section 6)**

(For fabric weight less than 100 g/sq.m)

Fabric Weight: 58 g/sq.m

**Test results**

**As received**

Specimen	Damaged Length (mm)		After-flame time (second)	
	Lengthwise	Widthwise	Lengthwise	Widthwise
1	204	208	0	0
2	219	210	0	0
3	198	197	0	0
4	211	215	0	0
Average	208		0	

\*Continuous flaming was not observed after the dipped/broken material fell on the floor of the test cabinet.

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Specimen		Sample Weight (g)		Weight Loss (%)
		Original (O)	After test (T)	$(O - T) / O \times 100$
Lengthwise	1	1.28	1.27	0.78
	2	1.28	1.26	1.56
	3	1.29	1.27	1.55
	4	1.27	1.26	0.79
Widthwise	1	1.28	1.27	0.78
	2	1.29	1.28	0.78
	3	1.27	1.25	1.57
	4	1.27	1.26	0.79
			Average	1.08

### After Leaching

Specimen	Damaged Length (mm)		After-flame time (second)	
	Lengthwise	Widthwise	Lengthwise	Widthwise
1	200	199	0	0
2	206	204	0	0
3	194	197	0	0
4	208	211	0	0
Average	202		0	

\*Continuous flaming was not observed after the dipped/broken material fell on the floor of the test cabinet.

Specimen		Sample Weight (g)		Weight Loss (%)
		Original (O)	After test (T)	$(O - T) / O \times 100$
Lengthwise	1	1.28	1.27	0.78
	2	1.28	1.26	1.56
	3	1.27	1.26	0.79
	4	1.29	1.27	1.55
Widthwise	1	1.27	1.26	0.79
	2	1.29	1.28	0.78
	3	1.29	1.27	1.55
	4	1.28	1.26	1.56
			Average	1.17

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**After Weathering**

Specimen	Damaged Length (mm)		After-flame time (second)	
	Lengthwise	Widthwise	Lengthwise	Widthwise
1	213	214	0	0
2	197	206	0	0
3	206	215	0	0
4	184	198	0	0
Average	204		0	

\*Continuous flaming was not observed after the dipped/broken material fell on the floor of the test cabinet.

Specimen	Sample Weight (g)		Weight Loss (%)
	Original (O)	After test (T)	(O - T) / O x 100
Lengthwise	1	1.29	1.55
	2	1.29	0.78
	3	1.27	1.57
	4	1.28	0.78
Widthwise	1	1.27	0.79
	2	1.27	1.57
	3	1.28	1.56
	4	1.28	0.78
		Average	1.17

**Requirements**

## 1. Damaged Length

Fabric weight (g/sq.m)	Maximum average for sample unit (mm)	Maximum for individual specimen (mm)
More than 50 but Not more than 135	215	255

\* Lightweight Fabric Mass Loss Criteria

Any wall or top material with a mass of less than 100 g/m<sup>2</sup> will be considered acceptable if the mass loss during the test is no greater than 5 percent of the original test specimen mass, regardless of the damage length measurement.

## 2. After flame time

- No specimen shall have an after-flame time of more than 4 seconds.
- Average after-flame time of all specimens shall not exceed 2 seconds.

## 3. Portions or residues that break or drip from the test specimens shall not continue to flame after they reach the floor of the test cabinet.

## 4. These requirement includes:

- specimens that were unleached and unweathered
- specimens that were leached but unweathered
- specimens that were weathered but unleached

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### Water Vapour Permeability of Textiles (JIS L1099 Method B-1:2006)

Test Method : Potassium Acetate  
Test Duration : 15 min.  
Orientation : Face facing Potassium Acetate

#### Client's Specified Requirement

#### **Result**

Gram per square meter per hours	447	/
Gram per square meter per 24 hours	10700	/

### Water Vapour Transmission of Textile Fabrics (ASTM E96/E96M-12)

Procedure BW - Inverted Water Method at 73.4 °F (23 °C) & 50±2% RH  
Tested Area : 0.003117 square meter  
Orientation : Back side facing water

#### Client's Specified Requirement

#### **Result**

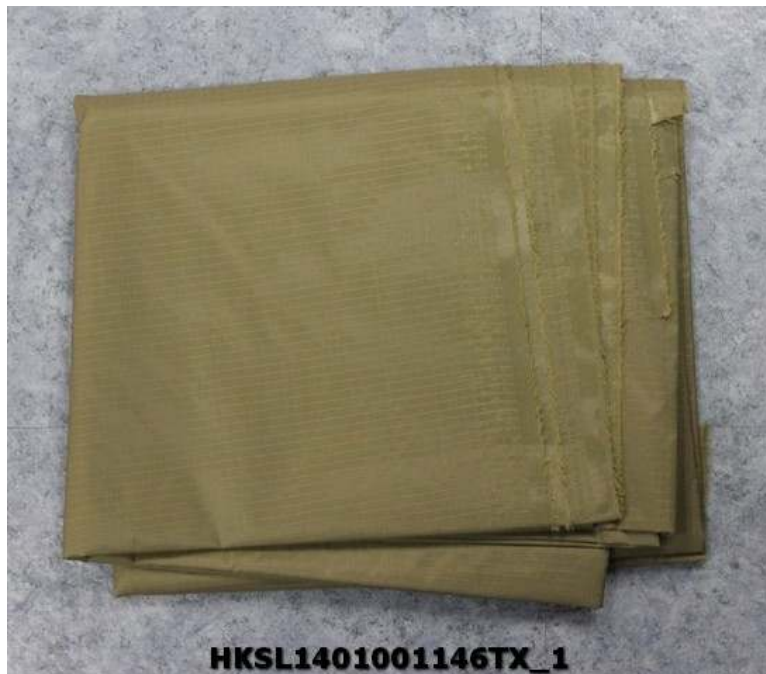
Gram per square meter per 24 hours	4630	/
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\*\*\* End of Report \*\*\*

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