



Test Report

No. 2766446/TX

Date : Nov 16 2006

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

One sample of knitted nishang organic 57.5% soy 37.5% organic cotton 5% spandex french terry 310g/sq.m. cutting in green.

Buyer :
Style / PO # : NS-65083
Applicant's Proposed Care Instruction : Machine wash warm, tumble dry normal, do not bleach, do not iron
Sample Receiving Date : Nov 13, 2006
Test Performing Date : Nov 13, 2006
Test Performed : Selected test(s) as requested by applicant against specified requirement
Test Results : Please refer to next page (s)

Tested sample returned to applicant.

Signed for and on behalf of
SGS Hong Kong Ltd.

Yau Yin Kam, Emily
Account Manager

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Test Result :

Specified Requirement

Dimensional Stability To Washing

(AATCC 135-2004 Option 1 Test No. (1)IIIA(i); Machine wash at 80 degree F with 4 lb total loading (Type 3 dummy + specimen), normal cycle, tumble dry sturdy at 150±10 degree F)

After 1 wash

Lengthwise	(%)	-2.0	/
Widthwise	(%)	-1.2	

After 5 wash

Lengthwise	(%)	-4.1	Max. 2%
Widthwise	(%)	-3.1	

Remarks : (+) Means extension
 (-) Means shrinkage

Measurement of Skewness of Fabric (AATCC 179-2004 Method 1, Option 2)

After 1 wash

Skewness	(%)	NIL	+/-2%
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After 3 wash

Skewness	(%)	NIL	+/-2%
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Note : Washing procedure same as shrinkage

Colour Fastness To Washing

(AATCC 61-2003; Test No.2A)

Change in shade	5.0	Min. 5.0
Staining on multifibre stripe		Min. 4.5
Acetate	4.5	
Cotton	4.5	
Nylon	4.5	
Polyester	4.5	
Acrylic	4.5	
Wool	4.5	

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Specified Requirement**Colour Fastness To Perspiration** (AATCC 15-2002)

Change in shade	5.0	Min. 5.0
Staining on multifibre stripe		
Acetate	4.5	Min. 4.5
Cotton	4.5	
Nylon	4.5	
Polyester	4.5	
Acrylic	4.5	
Wool	4.5	

Colour Fastness To Water
(AATCC 107-2002)

Change in shade	5.0	Min. 5.0
Staining on multifibre stripe		
Acetate	4.5	Min. 4.5
Cotton	4.5	
Nylon	4.5	
Polyester	4.5	
Acrylic	4.5	
Wool	4.5	

Colour Fastness To Crocking (AATCC 8-2004)

Dry staining	5.0	Min. 5.0
Wet staining	4.5	Min. 4.0

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

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

After 20 'AATCC' Fading Unit Class	3.5	Min. 4.0
After 40 'AATCC' Fading Unit Class	3.0	Min. 4.0

Wicking Rate (Ref. JIS L1907-1994 Byreck Method)

As received	After 1 mins	After 5 mins	After 30 mins	After 1 hour	
<u>Water wicks up</u>					/
Lengthwise (cm)	NIL	1.0	5.0	7.5	
Widthwise (cm)	NIL	2.0	7.5	10.3	
<u>After 1 wash *</u>					
<u>Water wicks up</u>					/
Lengthwise (cm)	NIL	1.0	2.5	4.0	
Widthwise (cm)	NIL	1.0	3.0	4.5	

* Washing procedure : same as shrinkage

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Specified Requirement**Pilling Resistance**

(ASTM D3512:1999; after 30 min. tumbling in Random Tumble Pilling Tester)

<u>After received</u>	<u>After 10 min. tumbling</u>	<u>After 30 min. tumbling</u>	<u>Specified Requirement</u>
	4.0	4.0	Min. 5.0

Remarks : Pilling Rating
 5 No pilling
 4 Slight pilling
 3 Moderate pilling
 2 Significant pilling
 1 Severe pilling

Ball Bursting Strength (Ref. ASTM D3787-2001)

(lb)	71.8	Min. 50 lb
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Fabric Weight Per Unit Area (ASTM D3776-1996(2002); Option C)

(oz / sq. yd.)	9.21	310 g/sq.m
(g / sq.m.)	312	

Fibre Content

(AATCC 20A-2005; absed on moisture regain weight and Ref. AATCC 20A-2005; Microscopic counting method)

Azlon	58.2%
Cotton	36.9%
Spandex	4.9%

Note : (1) The results considered approximate owing to the nature of the test method.
 (2) Calculated based on specific gravity of cotton 1.55 / Azlon 1.29
 (3) Based on ASTM D1909-04, moisture regain of azlon 10.0%, cotton 8.0%, spandex 1.3%

Transmittance or Blocking of Erythemally Weighted Ultraviolet Radiation through Fabrics

(AATCC 183-2004)

	<u>Dry Evaluation</u>	<u>Wet Evaluation</u>
Ultraviolet Protection Factor (UPF) :	521	276
Standard Deviation :	38	21
Rated UPF :	50+	50+
Protection Category :	Excellent	Excellent
Percent Transmittance, T (UV-A) :	0.45	1.14
Percent Transmittance, T (UV-B) :	0.16	0.28
The Percent Blocking, UV-A :	99.55	98.86
The Percent Blocking, UV-B :	99.84	99.72

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Test was conducted in wavelength range : 280 – 400 nm
Instrument : UV – Vis Spectrophotometer model
No. of Scans : 6

Remarks :

- (1) Ultraviolet Protection Factor (UPF) is the ratio of the average effective ultraviolet radiation (UV-R) irradiance transmitted and calculated through air to the average effective UV-R irradiance transmitted and calculated through fabric.
- (2) The limits of the spectral range of ultraviolet radiation are not well defined and may vary according to the user. Committee E-2.12 of the International Commission on Illumination (CIE) distinguishes in the spectral range between 400 and 100 nm :
UV-A : 315 – 400 nm
UV-B : 280 – 315 nm
UV-R : 280 – 400 nm
- (3) This method can also be used to determine the UPF of wet and/or stretched fabrics. However, the techniques for wetting and/or stretching the specimens are not part of this method and are addressed in a separate test procedure. It must be noted that wetting and/or stretching the specimens could change the UPF properties.
- (4) Refer to ASTM D6603, the UV protection category is determined the UPF values,
UPF 40 or greater Excellent UV protection
UPF in between 25 to 39 Very Good UV Protection
UPF is between 15 to 24 Good UV protection
UPF less than 15 Unclassification
The listed protection category is for reference only, the market claims for labeling UV-Protection product shall follow "Standard Guide For Labeling UV-Protection Textiles" as stated in ASTM D6603-00.

Note : Graph Appendix is attached

*** End of Report ***

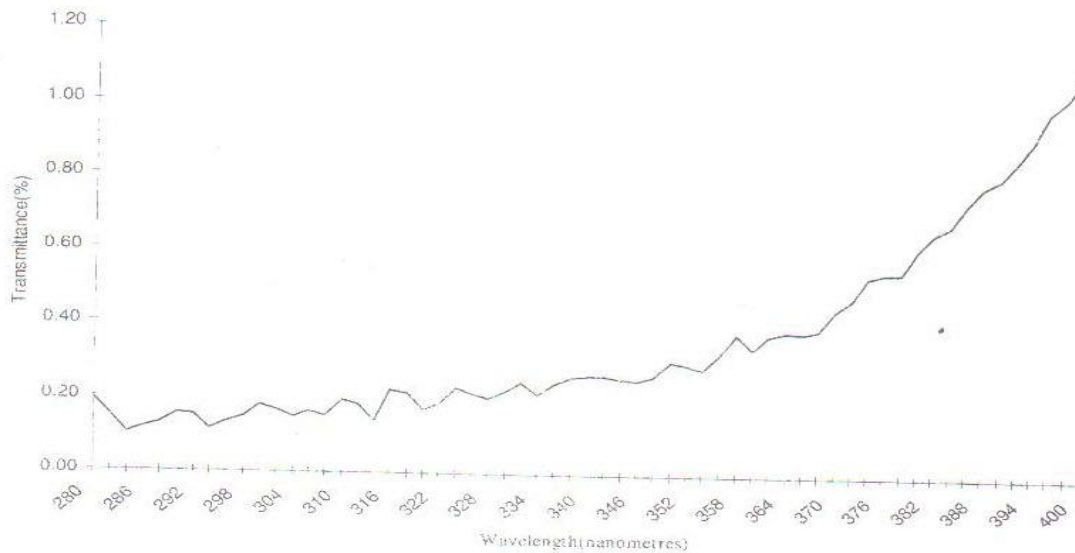
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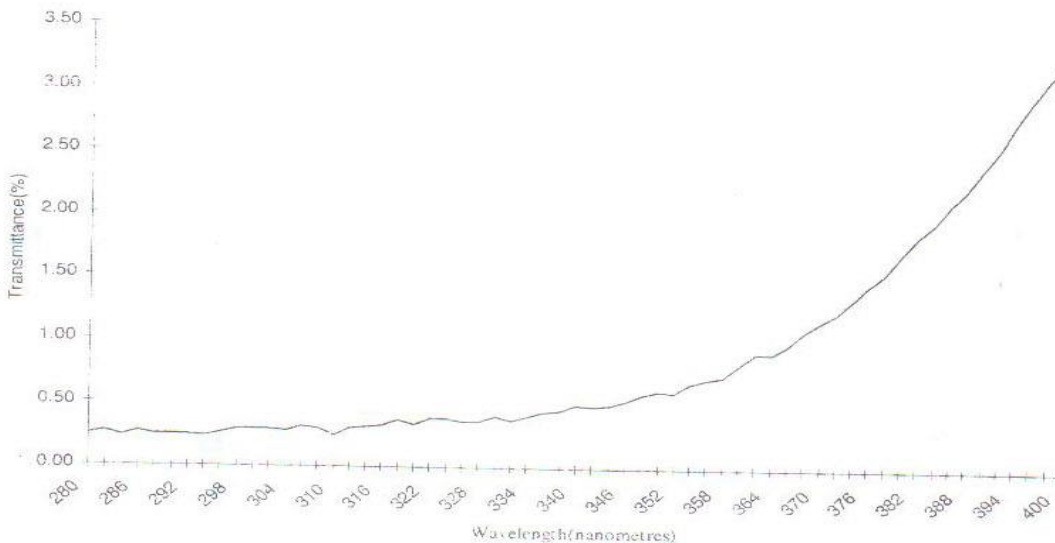
Dry Evaluation :

UV Transmittance Through Fabrics



Wet Evaluation :

UV Transmittance Through Fabrics



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