

Textile Laboratory
Test Report

No: TXC0152 /2018 /LI

Date: Dec. 12, 2018

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Creative Tech Textile Co., Ltd
No.1014-2, Dawan Rd., Yongkang Dist.,
Tainan City 710, Taiwan

Overall Rating	
V	Pass
	Fail

Creative Tech Textile Co., Ltd			
Vendor Name :	Creative Tech Textile Co., Ltd		
Sample Description :	-		
End Use:	-		
Color :	Sugar Coral (LTORANGE01)		
Fabric/Garment Style :	159212	PO:	-
Country Of Origin :	Taiwan		
Fiber Content :	100% Polyester	Weight :	105gsm
MGF:	-	Supplier #:	-
Fabric:	-	Construction:	81*80
SKU/Item Number:	-	Count:	-
Previous Report No.:	-	Vendor #:	PLY-7G1017
Sample Receiving Date :	Dec. 04, 2018	Test Performing Date :	Dec. 04, 2018 to Dec. 11, 2018
Applicant's Submitted Care Instruction:	Machine Wash In Cold Temperature Do Not Bleach Warm Iron If Needed Tumble Dry Low Dry Clean Allowed		

* Tested sample returned to applicant.

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Test	Pass	Fail	Remarks
Dimensional Change After 3 rd Washing	√		
Appearance After 3 rd Washing	√		
Skewing	√		
Colorfastness To Washing	√		
Colorfastness To Perspiration	√		
Colorfastness To Crocking	√		
Colorfastness To Light	√		
Fabric Weight Per Unit Area	√		
Moisture Wicking	√		
UPF			Please see test result

Pass = Meets Performance Standard.

Fail = Fails to meet Performance Standard.

Signed for and on behalf of
 SGS Taiwan Ltd.



Cheng Yueh-Er, Ellen
 Supervisor

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Test Results:

		<u>Requirement</u>
<u>Dimensional Change After 3rd Washing</u>		
(AATCC 135 2018 Option 1 - (1)IIA - Machine wash at 80±5°F - using 1993 AATCC Standard Reference Detergent - normal cycle - tumble dry low - 3 cycles)		
Warp/Length (%)	-0.8	±3%
Weft/Width (%)	-0.7	±3%

Remark: (+) Means Extension and (-) Means Shrinkage

Appearance After 3rd Washing

(AATCC 135 2018 Option 1 - (1)IIA - Machine wash at 80±5°F - using 1993 AATCC Standard Reference Detergent - normal cycle - tumble dry low - 3 cycles & warm iron)

Observation on washed sample:

After 3 washing

1. Color change: 4.5
2. Pilling rating: 4.5
3. No other significant change

Min. 3.5
 No obvious
 defects/observations
 affecting the
 end product

The general appearance of the washed sample was satisfactory.

Skewing

(AATCC 179 - 2017 Method 1 option 1)

After washing*	0.8%	±5% Max.
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*Washing condition: AATCC 135 2018 - (1)IIA - Machine wash at 80±5°F - using 1993 AATCC Standard Reference Detergent - normal cycle - tumble dry low - 3 cycles

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Test Results:

		<u>Requirement</u>
<u>Colorfastness To Washing</u>		
(Modified AATCC 61 - 2A - 2013 - 45min - Mechanical wash but at 105°F - in 0.15% 1993 AATCC standard reference detergent WOB solution with 50 steel balls - 150ml liquor volume)		
Change in shade	4.5	Shade change 3.5
Staining of acetate	4.5	
Staining of cotton	4.5	Staining 3.5
Staining of nylon	4.5	
Staining of polyester	4.5	
Staining of acrylic	4.5	
Staining of wool	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.

Colorfastness To Perspiration
 (AATCC 15:2013)

Change in shade	4.5	Shade change 3.5
Staining of acetate	4.5	
Staining of cotton	4.5	Staining 3.5
Staining of nylon	4.5	
Staining of polyester	4.5	
Staining of acrylic	4.5	
Staining of wool	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.

Colorfastness To Crocking
 (AATCC 8: 2016)

Dry staining	4.5	Medium 3.5
Wet staining	4.5	2.5

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

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Test Results:

		<u>Requirement</u>
<u>Colorfastness to Light</u>		
(AATCC 16.3 - 2014 - Option 3 - Water-Cooled Xenon-Arc Lamp Fading Test)		
After 20 AFU		Medium
Change in shade	3.5	3.5

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 - 09a (R2013) Option C]

Mass Per Unit Area (g/m ²)	110	Stated 105	+5%
Mass Per Unit Area (oz/yd ²)	3.24	-	

Moisture Wicking

(AATCC 197 - 2013 Option B)

Lengthwise wicking height	After 30 min Over 165 mm	Solids Min. 130 mm @ 30 minutes
Widthwise wicking height	Over 165 mm	

Note: Observation on face side

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Test Results:

Requirement

Transmittance or Blocking of Erythemally Weighted Ultraviolet Radiation through Fabrics
 (AATCC 183-2014)

As received

	<u>Dry evaluation</u>	<u>Wet evaluation</u>
Ultraviolet Protection Factor (UPF) :	48	36
Standard Deviation :	0.39	0.21
Rated UPF :	45	35
Protection Category :	Excellent	Very Good
Percent Transmittance, T (UV-A) :	7.37	12.83
Percent Transmittance, T (UV-B) :	1.11	1.05
The Percent Blocking, UV-A :	92.63	87.17
The Percent Blocking, UV-B :	98.89	98.95

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
- (5) 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 D6603-07.

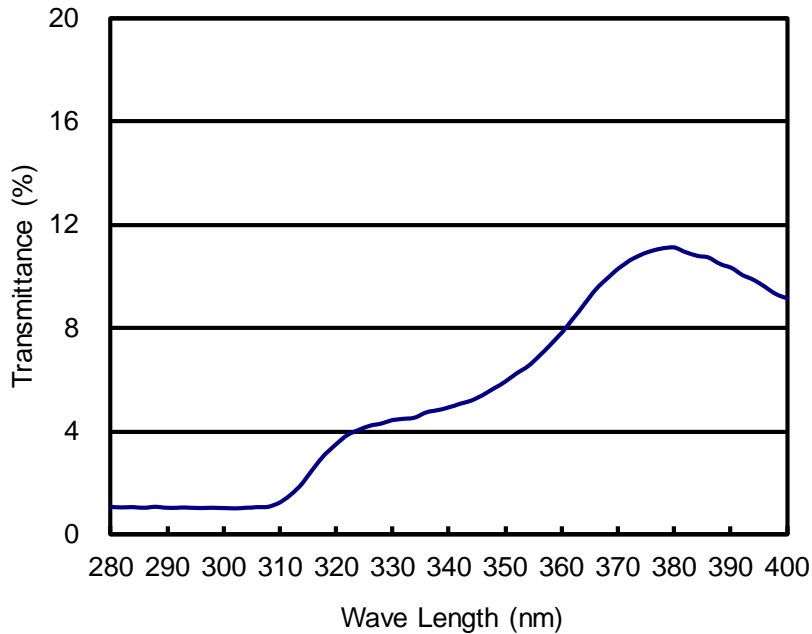
Note: Graph Appendix is attached.

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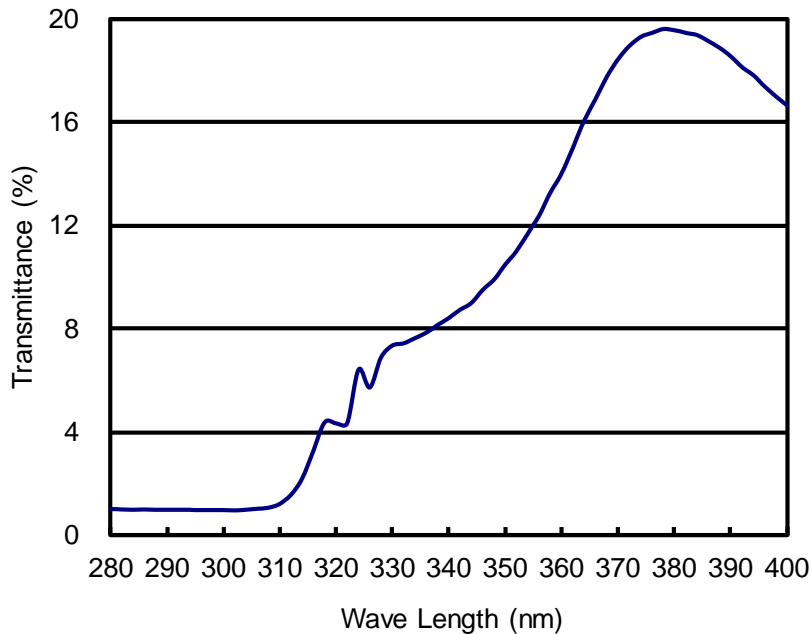
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UV Transmittance Characteristics_Dry



UV Transmittance Characteristics_Wet



*** End of Report ***

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