

UMORFIL[®] N6U[™]

Nylon6 by UMORFIL[®] Technology



測試報告

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The following sample was submitted and identified by applicant as:

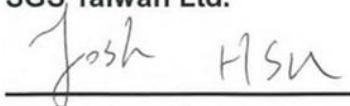
Sample Description : One sample of knitted fabric RD257-42
 Color : Black
 Fiber Content : 91% Nylon 9% Spandex
 Fabric Weight : 240g/y
 Manufacturer/Vendor : 
 Country of Origin : Taiwan
 Applicant : 
 Sample Receiving Date : Apr. 13, 2018
 Test Performance Period : Apr. 13, 2018 to Apr. 20, 2018
 Client's Provided Care Label :



Hand Wash
 Machine Wash Under 30°C
 Gentle Cycle
 Do Not Bleach
 Do Not Tumble Dry
 Line Dry In The Shade
 Do Not Iron Or Press With Heat
 Do Not Dry Clean
 Separate The Lights From Darks

Test Performed : Selected test(s) as requested by applicant.
 Test Results : For further details, please refer to the following page(s).

Signed for and on behalf of
 SGS Taiwan Ltd.



Hsu Chih Chieh, Josh
 Test Specialist

Textile Laboratory

Test Report

No: TX40676 /2018 /SP

Date: Apr. 20, 2018

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Test Results:

9.Method of test for the Instantaneous Cool Sensation Fabrics (THERMO LABO IIB, TYPE: KES-F7)

Skin contact side(Back side)
(W/cm²) 0.194

Test Conditions: 1. Room Temperature : 20±2°C, Humidity : 65±4%
2. Cool plate temperature: 20±0.1°C
Hot plate temperature: 30±0.1°C

10.Deodorization: JAFET – GC method (ISO 17299-3:2014 method A)

Nonenal
Initial concentration of gas about 14 ppm
Reduction (%) 93

Note : 1.Test time : 2 hours
2.Amount of specimen: 50 cm²
3.The test was subcontract to other Laboratory.

11.Deodorization - Perspiration odors (ISO 17299-2/3:2014):

Test method	Detecting tube method (Instrumental analysis)		GC method (Instrumental analysis)
	Ammonia	Acetic acid	Isovaleric acid
Initial concentration of gas	100ppm	30ppm	About 38ppm
Reduction (%)	96	89	98

Note : 1.Test time : 2 hours
2.Amount of specimen: 100 cm²/50 cm²
3.The test was subcontract to other Laboratory.

Test Report

Number: TWNT01355268

Date: Aug 24, 2016

Applicant: Camangi Corp.
5F., No. 105, Ln. 108, Leye St.,
Da'an Dist., Taipei City 10674,
Taiwan, R.O.C.

Sample Description :

One (1) piece of submitted sample said to be 89% UMORFIL Nylon 11% Lycra knitted seamless fabric, in Black.

Applicant's Provided Care Instruction/Label : -

Received Date	: Aug 19, 2016
Test Start Date	: Aug 19, 2016
Standard	: -
Style/Article No.	: UM886C0700174A
Order No.	: -
Mill	: -
Buyer's Name	: -
Agent's Name	: -
Brand Name	: -
Country Of Origin	: Taiwan
Ref.	: -

Authorized By:
On behalf of Intertek Testing Services
Taiwan Limited

Carol Peng
Assistant General Manager



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lily/ting

Intertek Testing Services Taiwan Ltd.

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Test Report

Number: TWNT01355268

Tests Conducted (As Requested By The Applicant)

1 Absorbency Of Textile Material (AATCC 79-2010):

Face Side	2 sec.
Back Side	2 sec.

End of Report

This report is made solely on the basis of your instructions and/or information and materials supplied by you. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the Review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct.

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Intertek Testing Services Taiwan Ltd.

8F., No. 423, Ruiguang Rd., Neihu District, Taipei 11492, Taiwan, R.O.C.

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Test Report

Number: TWNT01599397-S1

Applicant: 
Taipei,
Taiwan, R. O. C.

Date: Jul 06, 2018
This is to supersede report no.
TWNT01599397 dated Jun 25,
2018

Sample Description :

One (1) piece of submitted sample said to be 85% **UMORFIL N6U NYLON** 15% Spandex knitted fabric, in White.

Applicant's Provided Care Instruction/Label : -

Date Received/Date Test Started : Jun 20, 2018

Standard	: -
Style/Article No.	: -
Order No.	: -
Mill	: -
Buyer's Name	: -
Agent's Name	: -
Brand Name	: -
Ref.	: Cuff-U1

Authorized By:
On behalf of Intertek Testing Services
Taiwan Limited

Carol Peng
General Manager



Page 1 of 3

Tanya/Sakura

Intertek Testing Services Taiwan Ltd.

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Test Report

Number: TWNT01599397-S1

Tests Conducted (As Requested By The Applicant)

- 1 Textiles - Solar UV Protective Properties, Method of Test for Apparel Fabrics As Received (BS EN 13758-1:2002+A1:2006):

Solar Spectrum Irradiance Used : Noonday, July 3, Sunlight, Albuquerque
No. Of Scans : 8

The Samples Are Tested In Dry And Relaxation State.

Temperature : 20±2°C

Relative Humidity : 65±2%

The Ultraviolet Protection Factor, UPF:
>50

The Mean UVA Transmittance (315-400 nm):
3.42%

The Mean UVB Transmittance (290-315 nm):
0.05%

Standard Deviation Of UPF:
4.5

Standard Deviation Of UVA:
0.01

Standard Deviation Of UVB:
0.01

UPF Of Each Specimen:

1.	448.93
2.	436.89
3.	436.97
4.	436.01
5.	437.63
6.	434.35
7.	437.05
8.	436.75

End of Report

Tanya/Sakura



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Test Report

Number: TWNT01519395

Applicant: Camangi Corp.
5F., No. 105, Ln. 108, Leye St.,
Da'an Dist., Taipei City 10674,
Taiwan, R.O.C.

Date: Oct 30, 2017

Sample Description :

One (1) piece of submitted sample said to be 90% UMORFIL N6U 10% Spandex Single Jersey knitted fabric, in Black.

Applicant's Provided Care Instruction/Label : -

Received Date	: Oct 24, 2017
Test Start Date	: -
Standard	: -
Style/Article No.	: -
Order No.	: -
Mill	: -
Buyer's Name	: -
Agent's Name	: -
Brand Name	: -
Country Of Origin	: -
Ref.	: -

Conclusion:

Colour Fastness To Washing	M
Colour Fastness To Perspiration	M
Colour Fastness To Rubbing	M
Colour Fastness To Light	M

Note : M = Meet buyer's requirement
= No specified requirement
C = Pass within tolerance

F = Below buyer's requirement
* = No submitted information
N/A = Not Applicable

Remark : The tested specimens were returned to the applicant together with this report.

Authorized By:
On behalf of Intertek Testing Services
Taiwan Limited

Carol Peng
Assistant General Manager



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Lily/Sakura

Test Report

Number: TWNT01519395

Tests Conducted (As Requested By The Applicant)

- 1 Colour Fastness To Washing (ISO 105 C06 A2S-2010, Single Test, 30 Minutes Mechanical Wash At 40°C In 0.4% ECE Reference Detergent And 0.1% Sodium Perborate Solution With 10 Steel Balls):

Colour Change	4-5
Colour Staining	
-Acetate	4-5
-Cotton	4-5
-Nylon	4-5
-Polyester	4-5
-Acrylic	4-5
-Wool	4-5

- 2 Colour Fastness To Perspiration (ISO 105 E04-2013):

	<u>Acid</u>	<u>Alkaline</u>
Colour Change	4-5	4-5
Colour Staining		
-Acetate	4-5	4-5
-Cotton	4-5	4-5
-Nylon	4	4
-Polyester	4-5	4-5
-Acrylic	4-5	4-5
-Wool	4-5	4-5

- 3 Colour Fastness To Rubbing (ISO 105 X12-2016):

Dry	4-5
Wet	4-5

- 4 Colour Fastness To Light (ISO 105 B02-2014, Xenon-Arc Lamp):

Grade	Above 4
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End of Report

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Lily/Sakura



Test Report

Number: TWNT01546335
 Number: TWNT01546347
 Number: TWNT01546351
 Number: TWNT01546410

Sample Description :

One (1) piece of submitted sample said to be 90% UMORFIL® N6U 10% Spandex UMORFIL® N6U knitted fabric, in Fluorescent Green.

1. Colour Fastness To Washing (ISO 105 C06 A2S-2010, Single Test, 30 Minutes Mechanical Wash At 40°C In 0.4% ECE Reference Detergent And 0.1% Sodium Perborate Solution *With 10 Steel Balls):

Colour Change	4-5
Colour Staining	
-Acetate	4-5
-Cotton	4-5
-Nylon	4-5
-Polyester	4-5
-Acrylic	4-5
-Wool	4-5

2. Colour Fastness To Perspiration (ISO 105 E04-2013):

	<u>Acid</u>	<u>Alkaline</u>
Colour Change	4-5	4-5
Colour Staining		
-Acetate	4-5	4
-Cotton	4-5	4
-Nylon	4	4
-Polyester	4-5	4-5
-Acrylic	4-5	4-5
-Wool	4-5	4

3. Colour Fastness To Rubbing (ISO 105 X12-2016):

Dry	4.5
Wet	4.5

4. Colour Fastness To Light (ISO 105 B02-2014, Xenon-Arc Lamp):

Grade	3-4
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FINAL REPORT

Study title

Rabbit Skin Irritation Test (Physiological saline)

Test article name: UMORFIL® N6U™

Sponsor: Camangi Corporation Ltd.

5F, No. 15, Lane 108, Leye St, Da-an Dist, Taipei City 106, TAIWAN R.O.C

Test facility: Super Laboratory Co., Ltd. Contract Research Organization

No.21, Wugong 5th Rd., Xinzhuang Dist., New Taipei City 24890, Taiwan (R.O.C.)

Remark:

- This report contains a total of 32 pages. It will be invalid if separated and/or partially copied.
- Result of the test is only applicable to the specimens provided by our clients/partners.



Rabbit Skin Irritation Test for “UMORFIL[®] N6U[™]” (Physiological saline)

Abstract

This study was conducted according to ISO 10993-10: 2010 guideline to evaluate the response of rabbit skin irritation of the “UMORFIL[®] N6U[™]” (Specimen ID: M62-180600048) provided by Camangi Corporation Ltd. Three albino rabbits were used in this study. Referring to the extraction methods for preparing test article proposed in ISO 10993-12: 2012 guideline, the test article was extracted with physiological saline at $37 \pm 1^\circ\text{C}$ for 72 ± 1 hours, and the obtained extracts were used in this study. Before the test, the fur on the shoulder of test animal was shaved, and checked the skin with good condition. In the test, 0.5 mL of test article extracts and 0.5 mL control article were applied on the test area and control area of the dorsal skin via gauze patch, respectively. After 4 hours, the gauze was taken off and the response of rabbit skin irritation were evaluated at 1, 24 ± 1 , 48 ± 1 , and 72 ± 1 hours. Results indicated that there was no skin irritation response on the test area and control area of testing animals within 72 ± 1 hours. The primary irritation index (PII) was zero and classified as non-irritant. Therefore, the test article “UMORFIL[®] N6U[™]” did not cause any irritation response on the skin of rabbit under the conditions designed for this study.

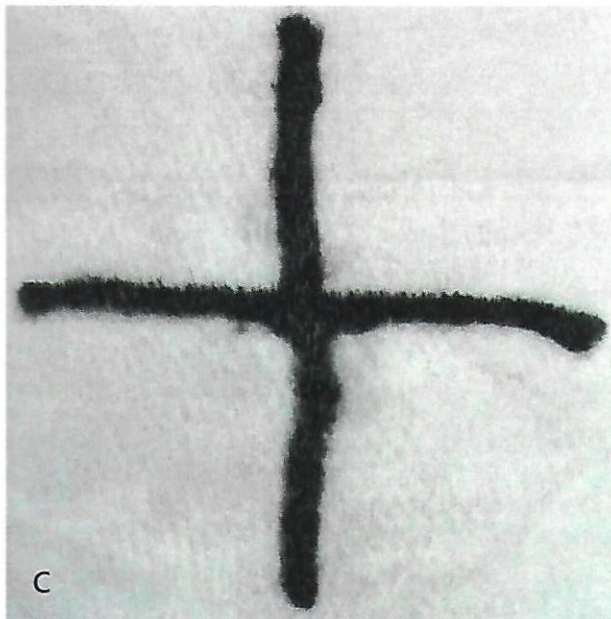
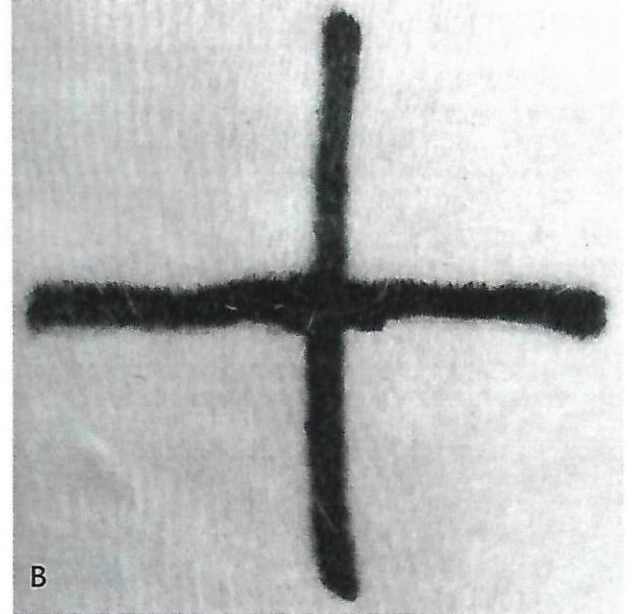
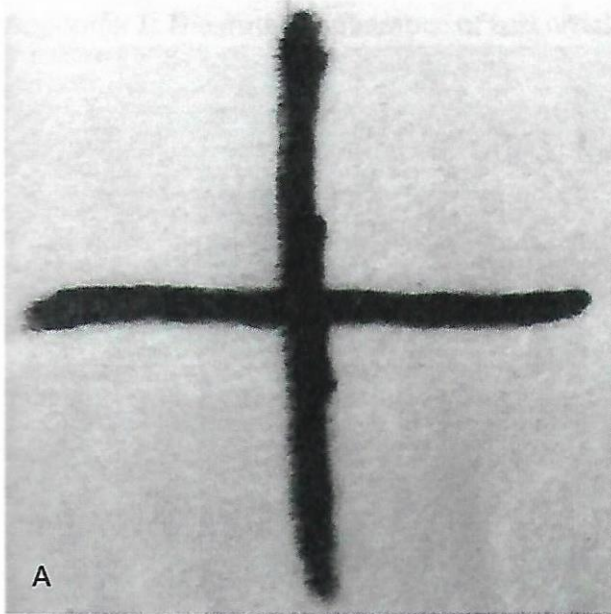
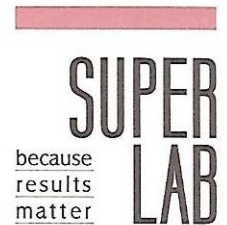


Figure 1: The result of rabbit skin irritation test. At 72 ± 1 hours of the observation period, there was no sign of erythema or edema on the test area and control area of three rabbits. A: Animal ID: 52; B: Animal ID: 53; C: Animal ID: 54.



Report No.: M62-180600049001EN



FINAL REPORT

Study title

Guinea Pig Skin Sensitization Test (Maximization Method) (Physiological saline)

Test article name: UMORFIL® N6U™

Sponsor: Camangi Corporation Ltd.

5F, No. 15, Lane 108, Leye St, Da-an Dist, Taipei City 106, TAIWAN R.O.C

Test facility: Super Laboratory Co., Ltd. Contract Research Organization

No.21, Wugong 5th Rd., Xinzhuang Dist., New Taipei City 24890, Taiwan (R.O.C.)

Remark:

- This report contains a total of 30 pages. It will be invalid if separated and/or partially copied.
- Result of the test is only applicable to the specimens provided by our clients/partners.



Guinea Pig Skin Sensitization Test (Maximization Method) for “UMORFIL® N6U™” (Physiological saline)

Abstract

This study was conducted according to ISO 10993-10: 2010 guideline and SuperLab standard operating procedure SOPP-309 to evaluate the allergenic potential or sensitizing capacity of the “UMORFIL® N6U™” (Specimen ID: M62-180600049) provided by Camangi Corporation Ltd. Fifteen guinea pigs were used in this study. Referring to the extraction methods for preparing test article proposed in ISO 10993-12: 2012 guideline, the test article was extracted with physiological saline at $37 \pm 1^\circ\text{C}$ for 72 ± 1 hours, and the obtained extracts were used in this study. Before the test, the fur on the shoulder of test animal was shaved, and checked the skin with good condition. The test animals were exposed to the test article extracts by intradermal injection and epidermal application, as induction phase. Following a rest period of 14 days, test article extracts loaded on the gauze patch was applied on the upper flank of all test animals for 24 ± 1 hours, as challenge phase. The skin sensitization reaction of the test animals upper flank were evaluated at 24 ± 1 and 48 ± 1 hours after challenge phase. Results indicated that there was no hypersensitivity response on the upper flank skin of the test group and control group animals. The sensitization rate of test group and control group were zero (0% sensitized) and classified as weak allergenic potential. Therefore, the test article “UMORFIL® N6U™” did not cause any skin sensitization response on guinea pigs under the conditions designed for this study.

Table 2: Individual skin reaction of guinea pigs .

Group	Sex	Animal ID	Grade of skin reaction ^a		Sensitization Rate	Sensitizing Capacity ^b
			24 ± 1 hrs	48 ± 1 hrs		
Control	Male	336	0	0	0%	Weak
		337	0	0		
		338	0	0		
		339	0	0		
		340	0	0		
		341	0	0		
		342	0	0		
		343	0	0		
Test	Male	344	0	0	0%	Weak
		345	0	0		
		346	0	0		
		347	0	0		
		348	0	0		
		349	0	0		
		350	0	0		

^a The skin reaction was grading according to "Magnusson and Kligman scale" (Appendix 3).

^b The sensitizing capacity of the test article was classified according to the "Scoring system of Kligman" (Appendix 4).

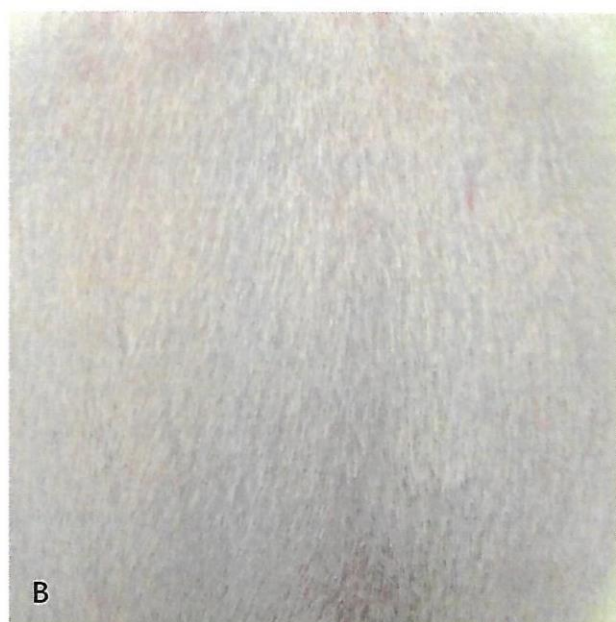


Figure 1: The result of guinea pig skin sensitization test. The skin reaction of all animals were no any sensitization response after challenge phase at 48 ± 1 hours. (A) Control group animal (Animal ID: 337). (B) Test group animal (Animal ID: 344).