

# Final Test Report

## LOT NO.L 17F 198 WGGD 90%

XS-32189  
Delights & Global Co.,Ltd

02 Mar 2017

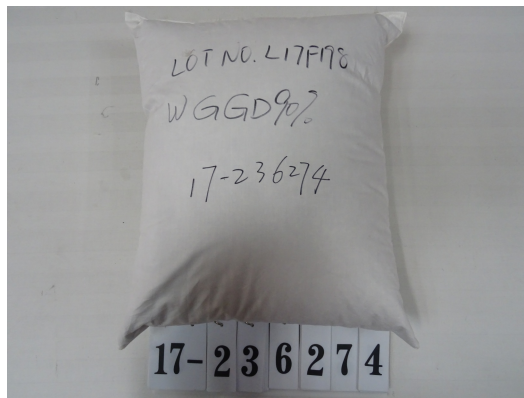
**Terry Nam**

Delights & Global Co., Ltd  
Room 112-610  
151 Hyeonchung-ro, Dongjak-gu  
Seoul  
SOUTH KOREA

tonylou@alliedfeather.net  
delight12global@gmail.com  
huangll@mail.lqfeather.com  
lvb@mail.lqfeather.com  
may@mail.lqfeather.com  
RUSH 5-Day  
Arrived: 10 Feb 2017  
Completed: 27 Feb 2017  
Revised: 02 Mar 2017

**Sample Description:** Plumage  
**Shipped By:** SF 927491833907  
**Filling Label:**

**Sample Identification:** LOT NO.L 17F 198 WGGD 90%



This analysis represents (within normal testing variances) the test results from the sample(s) submitted. The analysis may not represent the entire lot, batch or production run. In no event shall IDFL be responsible or liable for any direct, indirect, punitive, incidental, special, or consequential damages whatsoever arising out of or connected with the use of, misuse of, or reliance upon such results or analysis. This test report is subject to the Terms and Conditions found at [www.idfl.com](http://www.idfl.com).

## IDFL LABORATORY AND INSTITUTE

**IDFL**  
1455 South 1100 East  
Salt Lake City, UT 84105  
USA  
Tel: +1 801 467 7611  
email: [info@idfl.com](mailto:info@idfl.com)

**IDFL EUROPE**  
Zürcherstrasse 282  
CH-8500 Frauenfeld  
Switzerland  
Tel: +41 52 765 1574  
email: [europe@idfl.com](mailto:europe@idfl.com)

**IDFL CHINA**  
Tonghui Mid-Road 118, Xiaoshan,  
Hangzhou Zhejiang 311208  
China  
Tel: +86 571 8273 6561  
email: [china@idfl.com](mailto:china@idfl.com)

**IDFL TAIPEI**  
3F/4F., No. 163, Sec. 2, Wenhua Rd.,  
Banqiao District, New Taipei City  
Taiwan  
Tel: +886 2 2259 1178  
email: [taiwan@idfl.com](mailto:taiwan@idfl.com)

Security # 4460113377 e-Signature

[www.idfl.com](http://www.idfl.com)  
Page: 1 of 2  
Client: 11043  
XS-32189  
Sample: 1 of 1

# Final Test Report

## LOT NO.L 17F 198 WGGD 90%

XS-32189  
Delights & Global Co.,Ltd  
02 Mar 2017

This analysis represents (within normal testing variances) the test results from the sample(s) submitted. The analysis may not represent the entire lot, batch or production run. In no event shall IDFL be responsible or liable for any direct, indirect, punitive, incidental, special, or consequential damages whatsoever arising out of or connected with the use of, misuse of, or reliance upon such results or analysis. This test report is subject to the Terms and Conditions found at [www.idfl.com](http://www.idfl.com).

### IDFL LABORATORY AND INSTITUTE

Security # 4460113377 e-Signature

**IDFL**  
1455 South 1100 East  
Salt Lake City, UT 84105  
USA  
Tel: +1 801 467 7611  
email: [info@idfl.com](mailto:info@idfl.com)

**IDFL EUROPE**  
Zürcherstrasse 282  
CH-8500 Frauenfeld  
Switzerland  
Tel: +41 52 765 1574  
email: [europe@idfl.com](mailto:europe@idfl.com)

**IDFL CHINA**  
Tonghui Mid-Road 118, Xiaoshan,  
Hangzhou Zhejiang 311208  
China  
Tel: +86 571 8273 6561  
email: [china@idfl.com](mailto:china@idfl.com)

**IDFL TAIPEI**  
3F/4F., No. 163, Sec. 2, Wenhua Rd.,  
Banqiao District, New Taipei City  
Taiwan  
Tel: +886 2 2259 1178  
email: [taiwan@idfl.com](mailto:taiwan@idfl.com)

[www.idfl.com](http://www.idfl.com)  
Page: 2 of 2  
Client: 11043  
XS-32189  
Sample: 1 of 1



# DWR Test Report 1

Delights Global Co.,Ltd  
Terry Nam



## Sample Info – Treated

IDFL #: 17-236274  
Sample ID: LOT NO.L 17F 198 WGGD 90%  
Date: 3-Mar-2017

Expected Results		Test Results	
Content:	90.0%	Content:	N/A
Species:	Goose	Species:	N/A
Fill Power:	NA	Fill Power:	N/A
Fat & Oil	NA	Fat & Oil	N/A

Approved By:

## IDFL LABORATORY AND INSTITUTE

Certified Laboratory: IDFB • EDFA Associations: AATCC • ADFC • ASTM • CFDA • DAC • EDFA • IABFLO • TFEA

© IDFL

[www.idfl.com](http://www.idfl.com)

### IDFL

Salt Lake City, Utah  
[info@idfl.com](mailto:info@idfl.com)

### IDFL EUROPE

Frauenfeld, Switzerland  
[europe@idfl.com](mailto:europe@idfl.com)

### IDFL CHINA

Hangzhou, China  
[china@idfl.com](mailto:china@idfl.com)

### IDFL TAIWAN

Taipei, Taiwan  
[taiwan@idfl.com](mailto:taiwan@idfl.com)

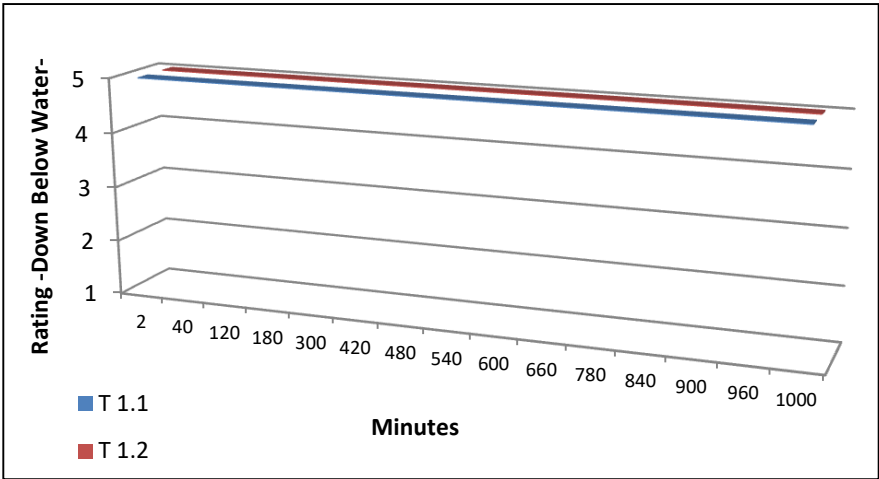
2017/3/3  
Page 1 of 4



IDFB 18-A

Hydrophobic Shake Test  
Measurement Interval - 2 Minutes

17-236274



5 Down Completely Above Water  
1 Down Completely Under Water

Minutes	T 1.1	T 1.2
2	5	5
40	5	5
120	5	5
180	5	5
300	5	5
420	5	5
480	5	5
540	5	5
600	5	5
660	5	5
780	5	5
840	5	5
900	5	5
960	5	5
1000	5	5

Treated material remains at rating 5 after : 1000 minutes



# DWR Test Report 1

Delights Global Co.,Ltd  
Terry Nam

**IDFB 18-A (Picture References)**  
Hydrophobic Shake Test  
Measured Time Interval – 2 Minutes

2 Minutes



Rating: 5

300 Minutes



Rating: 5

**IDFB 18-A**  
Hydrophobic Shake Test  
Measured Time Interval – 2 Minutes

840 Minutes



Rating: 5

1000 Minutes



Rating: 5

## IDFL LABORATORY AND INSTITUTE

Certified Laboratory: IDFB • EDFA Associations: AATCC • ADFC • ASTM • CFDA • DAC • EDFA • IABFLO • TFEA

© IDFL

[www.idfl.com](http://www.idfl.com)

**IDFL**  
Salt Lake City, Utah  
[info@idfl.com](mailto:info@idfl.com)

**IDFL EUROPE**  
Frauenfeld, Switzerland  
[europe@idfl.com](mailto:europe@idfl.com)

**IDFL CHINA**  
Hangzhou, China  
[china@idfl.com](mailto:china@idfl.com)

**IDFL TAIWAN**  
Taipei, Taiwan  
[taiwan@idfl.com](mailto:taiwan@idfl.com)

2017/3/3  
Page 3 of 4



# DWR Test Report 1

Delights Global Co.,Ltd  
Terry Nam

## IDFB 18-B

Added Water Weight During Shaking  
8 Minutes Machine Shake

17-236274

	Flask Weight (g)	Sample Weight (g)	After Shake (g)	Water Weight (g)
2.1 T	177.85	1.50	182.53	3.18
2.2 T	178.48	1.50	183.00	3.02

**Conclusion:** On average the treated  
sample trapped  $\approx 3.1$  grams of water.

## IDFB 18-C

Laundry Durability  
Detergent: Woolite

17-236274

# of Washes	Fill Power (in <sup>3</sup> )
0	710
5	680
10	670

Conditioning: Steam

## EN 13543, IDFB 18-D

Water Absorption  
10 gram samples

17-236274

	Starting Weight (g)	Final Weight (g)
4.1 T	13.9	18.1
4.2 T	14.0	18.6
4.3 T	13.8	18.5
4.4 T	13.8	18.3

**Conclusion:** On average the treated  
sample absorbed  $\approx 32.4\%$  of water.



## DWR Test Report 2



### Sample Info – Treated

IDFL #: 17-236274- Hydrophobic shake- after 5 washes  
Sample ID: LOT NO.L 17F 198 WGGD 90%  
Date: 3-Mar-2017

Expected Results		Test Results	
Content:	90.0%	Content:	N/A
Species:	Goose	Species:	N/A
Fill Power:	NA	Fill Power:	N/A
Fat & Oil	NA	Fat & Oil	N/A

Approved By:

### IDFL LABORATORY AND INSTITUTE

Certified Laboratory: IDFB • EDFA Associations: AATCC • ADFC • ASTM • CFDA • DAC • EDFA • IABFLO • TFEA

© IDFL  
[www.idfl.com](http://www.idfl.com)

**IDFL**  
Salt Lake City, Utah  
[info@idfl.com](mailto:info@idfl.com)

**IDFL EUROPE**  
Frauenfeld, Switzerland  
[europe@idfl.com](mailto:europe@idfl.com)

**IDFL CHINA**  
Hangzhou, China  
[china@idfl.com](mailto:china@idfl.com)

**IDFL TAIWAN**  
Taipei, Taiwan  
[taiwan@idfl.com](mailto:taiwan@idfl.com)

2017/3/3  
Page 1 of 3



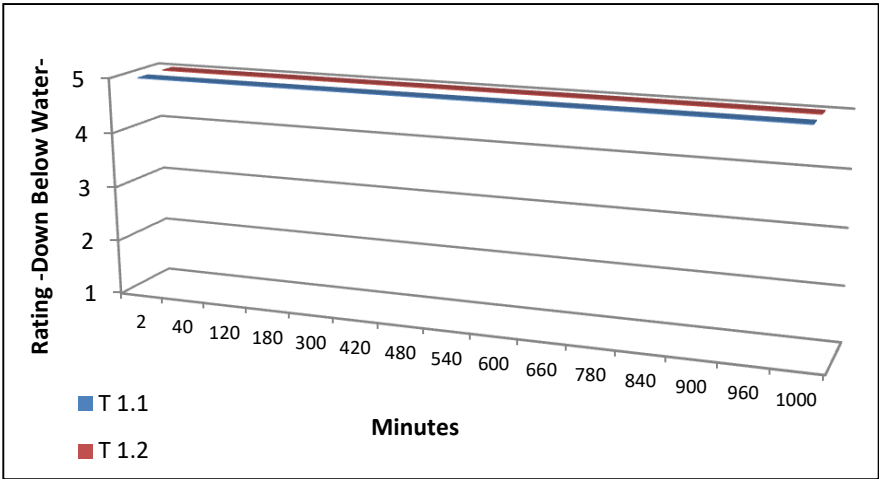


# DWR Test Report 2

**IDFB 18-A**

Hydrophobic Shake Test  
Measurement Interval - 2 Minutes

**17-236274**



5 Down Completely Above Water  
1 Down Completely Under Water

Minutes	T 1.1	T 1.2
2	5	5
40	5	5
120	5	5
180	5	5
300	5	5
420	5	5
480	5	5
540	5	5
600	5	5
660	5	5
780	5	5
840	5	5
900	5	5
960	5	5
1000	5	5

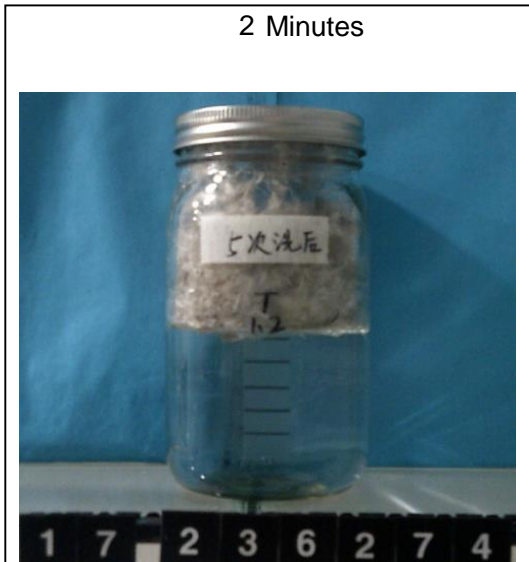
Treated material remains at rating 5 after : 1000 minutes



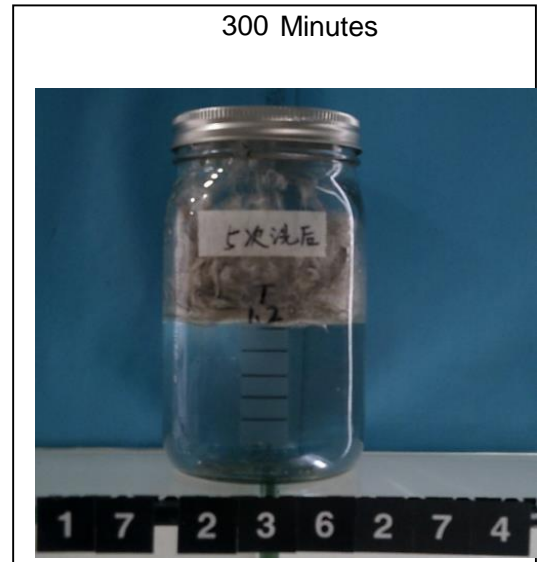


## DWR Test Report 2

**IDFB 18-A** (Picture References)  
Hydrophobic Shake Test  
Measured Time Interval – 2 Minutes



Rating: 5



Rating: 5

**IDFB 18-A**  
Hydrophobic Shake Test  
Measured Time Interval – 2 Minutes



Rating: 5



Rating: 5

### IDFL LABORATORY AND INSTITUTE

Certified Laboratory: IDFB • EDFA Associations: AATCC • ADFC • ASTM • CFDA • DAC • EDFA • IABFLO • TFEA

**IDFL**  
Salt Lake City, Utah  
info@idfl.com

**IDFL EUROPE**  
Frauenfeld, Switzerland  
europe@idfl.com

**IDFL CHINA**  
Hangzhou, China  
china@idfl.com

**IDFL TAIWAN**  
Taipei, Taiwan  
taiwan@idfl.com

© IDFL  
[www.idfl.com](http://www.idfl.com)

2017/3/3  
Page 3 of 3



## DWR Test Report 3



### Sample Info – Treated

IDFL #: 17-236274- Hydrophobic shake- after 10 washes  
Sample ID: LOT NO.L 17F 198 WGGD 90%  
Date: 3-Mar-2017

Expected Results		Test Results	
Content:	90.0%	Content:	N/A
Species:	Goose	Species:	N/A
Fill Power:	NA	Fill Power:	N/A
Fat & Oil	NA	Fat & Oil	N/A

Approved By:

### IDFL LABORATORY AND INSTITUTE

Certified Laboratory: IDFB • EDFA Associations: AATCC • ADFC • ASTM • CFDA • DAC • EDFA • IABFLO • TFEA

© IDFL  
[www.idfl.com](http://www.idfl.com)

**IDFL**  
Salt Lake City, Utah  
[info@idfl.com](mailto:info@idfl.com)

**IDFL EUROPE**  
Frauenfeld, Switzerland  
[europe@idfl.com](mailto:europe@idfl.com)

**IDFL CHINA**  
Hangzhou, China  
[china@idfl.com](mailto:china@idfl.com)

**IDFL TAIWAN**  
Taipei, Taiwan  
[taiwan@idfl.com](mailto:taiwan@idfl.com)

2017/3/3  
Page 1 of 3

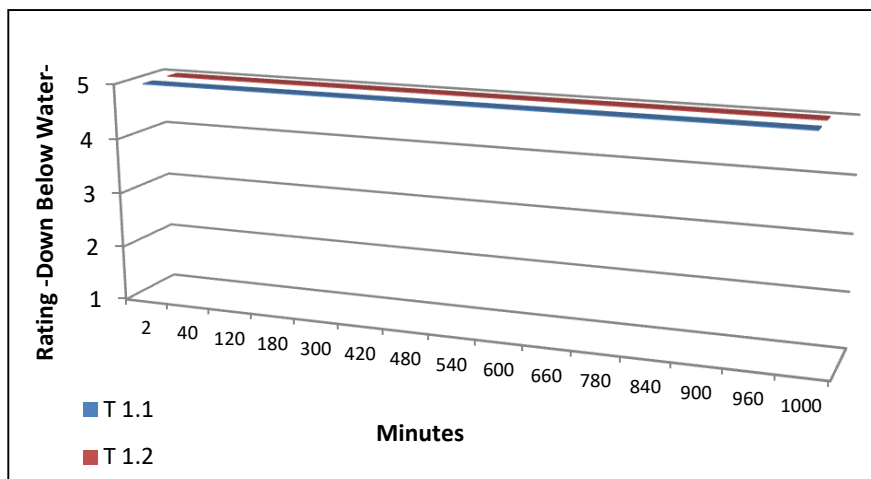


## DWR Test Report 3

### IDFB 18-A

Hydrophobic Shake Test  
Measurement Interval - 2 Minutes

**17-236274**



5 Down Completely Above Water  
1 Down Completely Under Water

Minutes	T 1.1	T 1.2
2	5	5
40	5	5
120	5	5
180	5	5
300	5	5
420	5	5
480	5	5
540	5	5
600	5	5
660	5	5
780	5	5
840	5	5
900	5	5
960	5	5
1000	5	5

Treated material remains at rating 5 after : 1000 minutes

### IDFL LABORATORY AND INSTITUTE

Certified Laboratory: IDFB • EDFA Associations: AATCC • ADFC • ASTM • CFDA • DAC • EDFA • IABFLO • TFEA

© IDFL  
[www.idfl.com](http://www.idfl.com)

IDFL  
Salt Lake City, Utah  
[info@idfl.com](mailto:info@idfl.com)

IDFL EUROPE  
Frauenfeld, Switzerland  
[europe@idfl.com](mailto:europe@idfl.com)

IDFL CHINA  
Hangzhou, China  
[china@idfl.com](mailto:china@idfl.com)

IDFL TAIWAN  
Taipei, Taiwan  
[taiwan@idfl.com](mailto:taiwan@idfl.com)

2017/3/3  
Page 2 of 3



## DWR Test Report 3

**IDFB 18-A** (Picture References)  
Hydrophobic Shake Test  
Measured Time Interval – 2 Minutes

2 Minutes



Rating: 5

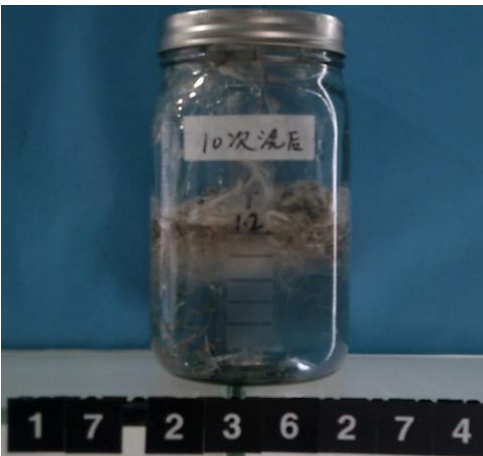
300 Minutes



Rating: 5

**IDFB 18-A**  
Hydrophobic Shake Test  
Measured Time Interval – 2 Minutes

840 Minutes



Rating: 5

1000 Minutes



Rating: 5

### IDFL LABORATORY AND INSTITUTE

Certified Laboratory: IDFB • EDFA Associations: AATCC • ADFC • ASTM • CFDA • DAC • EDFA • IABFLO • TFEA

© IDFL

[www.idfl.com](http://www.idfl.com)

**IDFL**  
Salt Lake City, Utah  
[info@idfl.com](mailto:info@idfl.com)

**IDFL EUROPE**  
Frauenfeld, Switzerland  
[europe@idfl.com](mailto:europe@idfl.com)

**IDFL CHINA**  
Hangzhou, China  
[china@idfl.com](mailto:china@idfl.com)

**IDFL TAIWAN**  
Taipei, Taiwan  
[taiwan@idfl.com](mailto:taiwan@idfl.com)