TEST REPORT

Technical Report: (5220)210-0081

Report Number
(5220)210-0081

BUREAU VERITAS HONG KONG LIMITED
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TEST REPORT

TO : **SAMSONITE ASIA LTD**
25/F, TOWER 2, THE GATEWAY,
HARBOUR CITY
25 CANTON ROAD, TSIM SHA TSUI
KOWLOON,
HONG KONG

ATTN : WINNIE LAM

LAB NO.: (5220)210-0081
FORM NO.: /
DATE IN: Jul 28, 2020
DATE OUT: Jul 31, 2020
DEPARTMENT: /
NO. OF WORKING DAYS: 4

OVERALL RATING

PASS	**X**
FAIL	
DATA	

Vendor:	/	**Agent:**	/
Fabric Supplier/Mill:	/	**Factory/Manufacturer:**	/
P.O. No.:	/	**Style No.:**	/
Sample Description:	#7 GOLDSUN 210D, KW48 0.24% + WASHABLE WR + DW30 0.7% OWF WITH PU COATING 1 TIME + HEAT EMBOSSED PRINT	**Style Description:**	/
Color:	/	**Country of Origin:**	/
Claimed Fabric Weight:	/	**Claimed Fabric Count:**	/
Yarn Size:	/	**Submitted Size:**	/
Size Range:	/	**FPU No.:**	/
GPU No.:	/	**End Use:**	/
Finishing:	/	**Age Group:**	/
SKU:	/		

Product Category	/
Test Requested	TEXTILES – DETERMINATION OF ANTIBACTERIAL ACTIVITY OF TEXTILE PRODUCTS (ISO20743)
Previous Report No.	/

Submitted Fiber Content	/
Actual Fiber Content	/
Suggested Fiber Content	/
Submitted Care Instruction(s)	/
Client Expected Care Instruction	/
Suggested Care Instruction(s)	/

TEST PROPERTY	PASS	FAIL	DATA	COMMENTS
TEXTILES – DETERMINATION OF ANTIBACTERIAL ACTIVITY OF TEXTILE PRODUCTS	X			

BUREAU VERITAS HONG KONG LTD.

YVONNE LUK
SENIOR MANAGER - SOFTLINES

C/N

Executive summary

The sample(s) MEET the following requirement(s):

- ISO 20743:2013 Standard Test Method, Textiles - Determination of antibacterial activity of antibacterial finished products, Quantitative test by absorption method of client's requirement.

Method Summary

The anti-microbial properties were evaluated using ISO 20743:2013 Standard Test Method, Textiles - Determination of antibacterial activity of textile products, Quantitative test by absorption method with the modification of using cover film to enhance the surface contact due to the test sample was hydrophobic. The following organisms were used for this test: *Staphylococcus aureus* (ATCC strain no. 6538) and *Klebsiella pneumoniae* (ATCC strain no. 4352).

Test samples were inoculated with the test organisms. After 18 to 24 hours incubation, the bacteria were eluted from the samples by shaking in known amounts of neutralizing solution. The number of bacteria present in this liquid was determined, and the value of antibacterial activity was calculated by the treated and untreated samples.

RESULTS:

Tested Component: Face side of light grey textile (original)

Test Result of Antibacterial Activity Value

Name of test bacteria (Strain number)	Staphylococcus aureus (ATCC 6538)	Klebsiella pneumoniae (ATCC 4352)
Concentration of inoculum (cfu/ml)	230,000	360,000
Difference of extremes for three control fabrics (0hr)	0.01	0.00
(18hrs)	0.08	0.02
Growth value on the control fabric (F)*	1.9	3.4
Growth value on the antibacterial-treated sample (G)*	-3.6	-3.4
Antibacterial activity value (A=F-G)*	5.5	6.8
Measuring method	Plate Count Method	
Type of test piece and material	Textile material	
Conclusion	Pass	Pass

* Express in logarithm number

Client's requirement: Antibacterial value (A) ≥ 3.0 (for original)
Antibacterial value (A) ≥ 2.0 (for after 10 cycles wash)

Efficacy of antibacterial property

Efficacy of antibacterial property	Antibacterial value (A)
Significant	$2 \leq A < 3$
Strong	$A \geq 3$

Test Information: untreated control sample was provided by lab using 100% cotton

C/N

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RESULTS:

Tested Component: Face side of light grey textile (original)

Test Result of Antibacterial Activity Value

Name of test bacteria (Strain number)	Staphylococcus aureus (ATCC 6538)	Klebsiella pneumoniae (ATCC 4352)
Concentration of inoculum (cfu/ml)	470,000	375,000
Difference of extremes for three control fabrics (0hr)	0.12	0.03
(18hrs)	0.06	0.07
Growth value on the control fabric (F)*	2.1	2.7
Growth value on the antibacterial-treated sample (G)*	-3.7	-3.4
Antibacterial activity value (A=F-G)*	5.7	6.1
Measuring method	Plate Count Method	
Type of test piece and material	Textile material	
Conclusion	Pass	Pass

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Client's requirement: Antibacterial value (A) ≥ 3.0 (for original)
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Growth value on the control fabric (F)*	1.9	3.4
Growth value on the antibacterial-treated sample (G)*	-3.5	-3.5
Antibacterial activity value (A=F-G)*	5.4	6.9
Measuring method	Plate Count Method	
Type of test piece and material	Textile material	
Conclusion	Pass	Pass

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Growth value on the control fabric (F)*	2.1	2.7
Growth value on the antibacterial-treated sample (G)*	-3.5	-3.6
Antibacterial activity value (A=F-G)*	5.5	6.3
Measuring method	Plate Count Method	
Type of test piece and material	Textile material	
Conclusion	Pass	Pass

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Test Information: untreated control sample was provided by lab using 100% cotton

***Staphylococcus aureus* (Test Setup - A1)**	
Sample (Original)	Standard Cloth
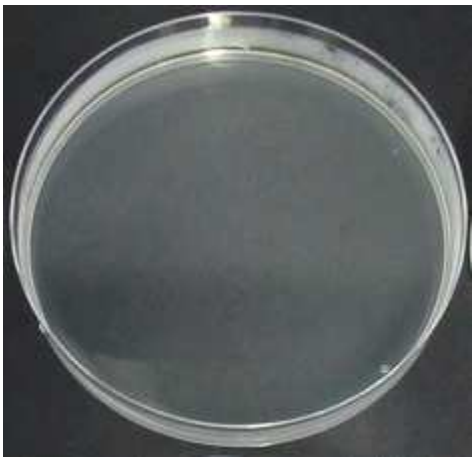	
Plate count at serial dilution of 10^0	

***Klebsiella pneumoniae* (Test Setup - A1)**	
Sample (Original)	Standard Cloth
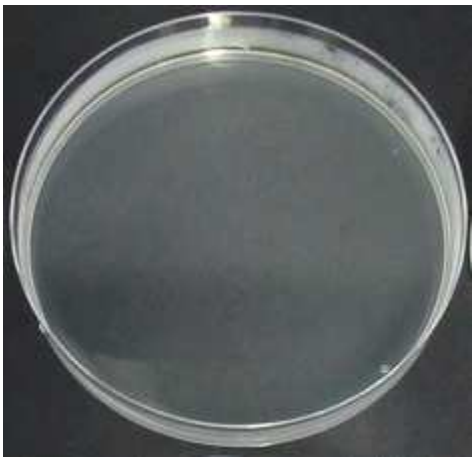	
Plate count at serial dilution of 10^0	

***Staphylococcus aureus* (Test Setup – A2)**	
Sample (Original)	Standard Cloth
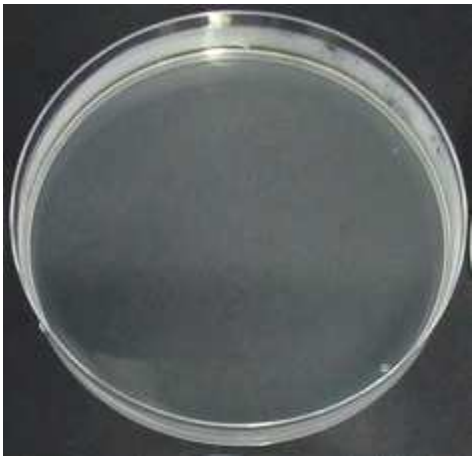	
Plate count at serial dilution of 10^0	

***Klebsiella pneumoniae* (Test Setup – A2)**	
Sample (Original)	Standard Cloth
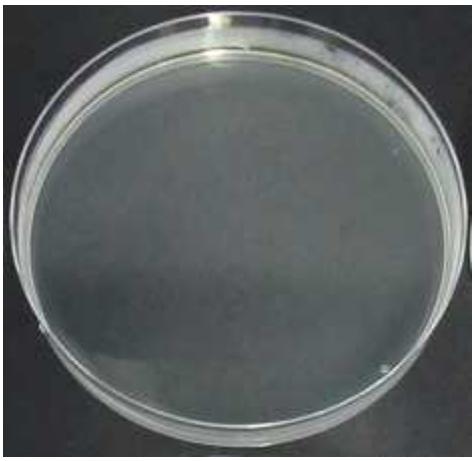	
Plate count at serial dilution of 10^0	

C/N

***Staphylococcus aureus* (Test Setup – B1)**	
Sample (after 10 cycles wash)	Standard Cloth
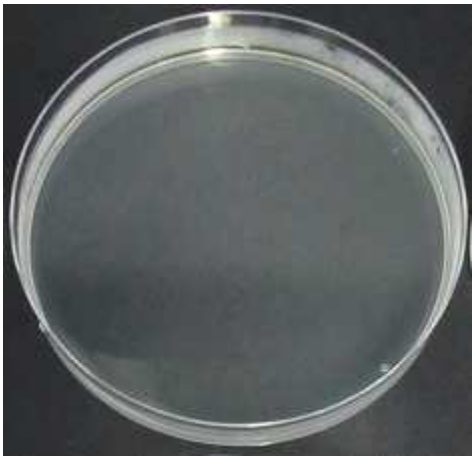	
Plate count at serial dilution of 10^0	

***Klebsiella pneumoniae* (Test Setup – B1)**	
Sample (after 10 cycles wash)	Standard Cloth
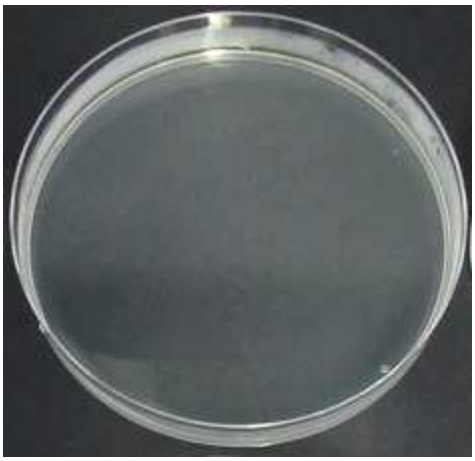	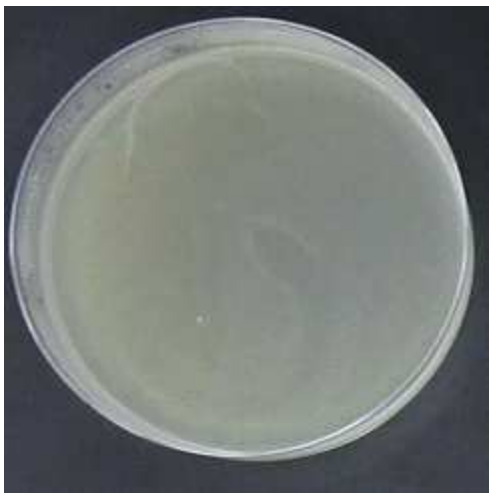
Plate count at serial dilution of 10^0	

***Staphylococcus aureus* (Test Setup – B2)**	
Sample (after 10 cycles wash)	Standard Cloth
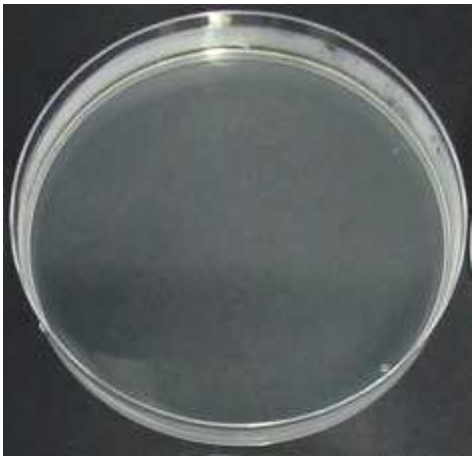	
Plate count at serial dilution of 10^0	

***Klebsiella pneumoniae* (Test Setup – B2)**	
Sample (after 10 cycles wash)	Standard Cloth
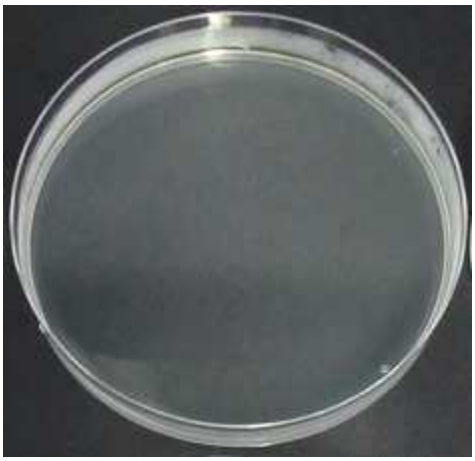	
Plate count at serial dilution of 10^0	