

Art Beauty Group Company Limited Room 2305, Apec Plaza 49 Hoi Yuen Road mited (www.arth m.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk)ArKwun Tong, Hong Kong,

Bacterial Filtration Efficiency (BFE) Final Report

Surgical Face Mask, Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artb Test Article:

Study Number: 1321259-S01 Study Received Date: 17 Jul 2020

Testing Facility: Nelson Laboratories. LLC

Salt Lake City, UT 84123 U.S.A. (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk) Standard Test Protocol (STP) Number: STP0004 Rev 18 Test Procedure(s):

Deviation(s): None

Summary: The BFE test is performed to determine the filtration efficiency of test articles by comparing the bacterial counts upstream of the test article to the bacterial counts downstream. A suspension of Staphylococcus aureus was aerosolized using a nebulizer and delivered to the test article at a constant flow rate and fixed air pressure. The challenge delivery was maintained at 1.7 - 3.0 x 10³ colony forming units (CFU) with a mean particle size (MPS) of 3.0 ± 0.3 μm. The aerosols were drawn through a sixstage, viable particle, Andersen sampler for collection. This test method complies with ASTM F2101-19 mited (www.artb) Art Beauty Group Company Limited (www.artbeauty and EN 14683:2019, Annex B.

All test method acceptance criteria were met. Testing was performed in compliance with US FDA good manufacturing practice (GMP) regulations 21 CFR Parts 210, 211 and 820. ©40 cm²mpany Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk)

Test Side:

BFE Test Area:

Company Limited (www.artbeauty. BFE Flow Rate: 28.3 Liters per minute (L/min)

Conditioning Parameters: 85 ± 5% relative humidity (RH) and 21 ± 5°C for a minimum of 4 hours S1 CFU mpany Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk

Test Article Dimensions:

Positive Control Average:

Negative Monitor Count: Company Limited (www.artbeauty.c

MPS: 2.9 µm

Hac-MR/



Trang Truong electronically approved for

18 Aug 2020 04:53 (+00:00)

Study Director Company Limited (www.artbeauty.com.hk)Art Beauty Group Company James Luskin

Study Completion Date and Time

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Test Article Number	Percent BFE (%)
1	99.2
2	nited (www.artbeauty.com.hk) 99.5
(www.artbeauty.com.hk) Art Reauty Group Company Lim	99.6
4	99.2
5 The filtration officials were proportioned work calculated	theauty com hk.) 99.4 eauty Group Company Limited

The filtration efficiency percentages were calculated using the following equation: C = Positive control average

$$\% BFE = \frac{C - T}{C} \times 100$$

T = Plate count total recovered downstream of the test article

Note: The plate count total is available upon request Company Limited (www.arth

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801-290-7500 sales@nelsonlabs.com Nelson Atabs Company Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk)

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49 Hoi Yuen Road mited (www.artb

Company Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk) ArKwun Tong, Hong Kong, Differential Pressure (Delta P) Final Report

Surgical Face Mask, Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artb Test Article:

Study Number: 1321255-S01 Study Received Date: 17 Jul 2020

Nelson Laboratories, LLC Testing Facility:

Salt Lake City, UT 84123 U.S.A. Standard TEAT Beauty Group Company Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk) Test Procedure(s): Standard Test Protocol (STP) Number: STP0004 Rev 18 Company Limited (www.artbeautDeviation(s):

None

Summary: The Delta P test is performed to determine the breathability of test articles by measuring the differential air pressure on either side of the test article using a manometer, at a constant flow rate. The Delta P test complies with EN 14683:2019, Annex C and ASTM F2100-19.

All test method acceptance criteria were met. Testing was performed in compliance with US FDA good Test Side y (Inside Company Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk) manufacturing practice (GMP) regulations 21 CFR Parts 210, 211 and 820.

Delta P Flow Rate: 8 Liters per minute (L/min)

Conditioning Parameters: 85 ± 5% relative humidity (RH) and 21 ± 5°C for a minimum of 4 hours

Results:

n.hk) Art Beauty Group Company Limited		esults:	
Delta P (Pa/cm²)	Delta P (mm H ₂ O/cm ²)	Test Article Number	npany Limited (
30.6	3.1	1	
hk) Art Beauty 29.9	3.0 www.artbeauty.com	2	
29.8	3.0	ww.artbeauty.com 3<) Art Beauty Group (
29.9	3.0	4	npany Limited
hk) Art Beauty 30. Jup Company Limited	3.1	5	
		5 www.artbeauty.com.hk) Art Beauty Group (

McKenna Wild electronically approved for

05 Aug 2020 21:13 (+00:00)

Study Director

Study Completion Date and Time James Luskin

Company Limited (www.artbeauty.com.hk)Art Beauty Group Company

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Art Beauty Group Company Limited Room 2305, Apec Plaza 49 Hoi Yuen Road mited (www.arth Lhk) Art Beauty Group Company Limited (www.artbeauty Kwun Tong, Kowloon, Hong Kong,

Synthetic Blood Penetration Resistance Final Report

Surgical Face Mask y Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk) Test Article:

Study Number: 1494454-S01 Study Received Date: 28 Feb 2022 Test Started Date: 03 Mar 2022 Test Finished Date:

Nelson Laboratories, LLC (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk) Testing Facility:

6280 S. Redwood Rd.

Salt Lake City, UT 84123 U.S.A.

Company Limited(www.artbeauty.com.hk)Ar Standard Test Protocol (STP) Number: STP0012 Rev 10 Test Procedure(s):

Deviation(s): None

Summary: This procedure was performed to evaluate surgical facemasks and other types of protective clothing materials designed to protect against fluid penetration. The purpose of this procedure is to simulate an arterial spray and evaluate the effectiveness of the test article in protecting the user from possible exposure to blood and other body fluids. The distance from the target area surface to the tip of the cannula is 30.5 cm. A test volume of 2 mL of synthetic blood was employed using the targeting plate mited (www.artb 1.hk) Art Beauty Group Company Limited (www.artbeauty method.

This test method was designed to comply with ASTM F1862 and ISO 22609 (as referenced in EN 14683:2019 and AS4381:2015) with the following exception: ISO 22609 requires testing to be performed in an environment with a temperature of 21 ± 5°C and a relative humidity of 85 ± 10%. Instead, imited (www.artb testing was performed at ambient conditions within one minute of removal from the environmental chamber held at those parameters, roup Company Lin

All test method acceptance criteria were met. Testing was performed in compliance with US FDA good ompany Limited (www.artbeauty.com.hk)Art Beauty Group Company Limited (www.artb manufacturing practice (GMP) regulations 21 CFR Parts 210, 211 and 820.

Number of Test Articles Tested:

29 Number of Test Articles Passed:

Test Side: **Outside Center Material**

Pre-Conditioning: Minimum of 4 hours at 21 \pm 5°C and 85 \pm 5% relative humidity (RH)

IIac-MR/



James Luskin electronically approved

14 Mar 2022 20:02 (+00:00)

Study Director James Luskin Company Limited (www.artbeauty.com.hk)Art Beauty Group Company Limited

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Test Pressure: 160 mmHg (21.3 kPa) Test Article Number	Synthetic Blood Penetration	
(www.artbeau 1-13, 15-18, 20-27, 29-32	None Seen	
14 10 28	Yes	
	(www.artbeauty.com.hk) Art Beauty Group Company Limited	

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Microbial Cleanliness (Bioburden) of Medical Masks Final Report

Surgical Face Maskany Limited (www.artbeauty.com.hk) Art Beauty Group Company Test Article:

1341861-S01 Study Number: Study Received Date: 16 Sep 2020

Testing Facility: Nelson Laboratories, LLC

Salt Lake City, UT 84123 U.S.A. www.artbeauty.com.hk) Art Beauty Group Company Limited (www.

Standard Test Protocol (STP) Number: Test Procedure(s): A STP0036 Rev 15

Customer Specification Sheet (CSS) Number: 202004425 Rev 01

Deviation(s): None

Summary: The testing was conducted in accordance with EN 14683:2019, with the exception of approximate volumes of eluent used when performing the extraction procedure and a temperature range of 30-35°C used for aerobic incubation.

When bioburden results are calculated using a software program, manual calculations may differ slightly Limited due to rounding. The counts determined on products are colony forming units and may not always reflect individual microorganisms. The sponsor performs any statistical analysis and determines the acceptable limits. Testing was performed in compliance with US FDA good manufacturing practice (GMP) regulations 21 CFR Parts 210, 211 and 820. uty Group Company Limited (www.artbeauty.com.hk)Art Beauty Group Company Limited (www

Results:

t	Unit Number	Weight (g)	Aerobic	Fungal	Total Bioburden (CFU/mask)	Total Bioburden (CFU/g)
	1	3.1	3	<3	<6.0	<1.9
	2	3.1	3	<3	<6.0	<2.0
	3	3.3	9	<3	<12.0	<3.6
	4	3.2	<3	<3	<5.9	<1.9
	5	3.1	<3	<3	<6.0	<1.9
t I	Recovery Efficiency			UTD ^a		

Note: The results are reported as colony forming units (CFU) per mask.

< = No Organisms Detected

UTD = Unable to Determine

v.artbeauty.com.hk)Art Beauty Group Company Limited (www UTD due to zero count on the first rinse. An alternative method or inoculated product recovery efficiency is recommended.





Robert Putnam electronically approved

08 Oct 2020 03:27 (+00:00)

Study Director

Robert Putnam

Study Completion Date and Time

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s received and relate only to the test article listed in this report. Reports may not be reproduced except in their entirety. Subject to NL

imited (www.artbeauty.com Study Number 1341861-S01 Nelson Labs Microbial Cleanliness (Bioburden) of Medical Masks Final Report

Method Suitability: m.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk)

Organism Percentage Bacillus atrophaeus 109%

ոk) Art Beauty Group Company Limited (www.artbeauty.com.hk) Art Company Limite Test Method Acceptance Criteria: If applicable, anaerobic controls are acceptable for the bioburden test results. The number of masks to be tested shall be a minimum of 5 or more to meet an acceptable Procedure Pauty.com.hk) Art Beauty Group Company Limited (www.artbeauty.com.hk)Art Beauty Group Company Limited (www.

Bacillus atrophaeus Positive Controls/Monitors:

Extract Fluid: Peptone Tween®

~300 mL Extract Fluid Volume:

Extract Method: Orbital Shaking for 15 minutes at 250 rpm

Company Limited (www.artbeauty.com.hPlating Method: Membrane Filtration

Tryptic Soy Agar

Potato Dextrose Agar

Recovery Efficiency: Exhaustive Rinse Method

Plates were incubated 3-7 days at 30-35°C, then enumerated. Aerobic Bacteria:

Company Limited (www.artbeauty.com.hk) Art B Fungal: Plates were incubated 5-7 days at 20-25°C, then enumerated.

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