

TEST REPORT

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SetSCO Services Pte Ltd
18 Teban Gardens Crescent
Singapore 608925
Tel : (65) 6566 7777
Fax: (65) 6566 7718
www.setsco.com
Business Reg. No. 196900269D

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Our reference No. : FB8500163443

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BACTERIAL FILTRATION EFFICIENCY (BFE) TEST

Date Issued : 02-Jun-2021
Date Sample Received : 31-May-2021
Date Sample Analyzed : 01-Jun-2021

Tested For:
Grantech Pte Ltd
629 Aljunied Road
Unit 04-17
Cititech Industrial Building
Singapore 389838
Attention: SY Ong

Manufacturer: Grantech Pte Ltd

Sample Description: Granzilla Aircare 3 Ply Disposable Face Mask (Black/White)

LOT No: 21042021

Sample :



Conditioning :
Samples were pre-conditioned to a temperature of $21 \pm 5^\circ\text{C}$ and relative humidity of $85 \pm 5\%$ for a minimum of 4 hours.

Test Method :
ASTM F2101 – 19 Standard Test Method for Evaluating the Bacterial Filtration Efficiency (BFE) of Medical Face Mask Materials, Using a Biological Aerosol of *Staphylococcus aureus*.
BS EN 14683: 2019: Medical face masks – Requirements and test methods

Area of test specimen tested: Approximately 100 cm^2

Area contacting with the bacterial challenge: Inner surface of the mask

Flow rate : 28.3 L/min

DR WU JIEN
HOD, MICROBIOLOGY

BIOLOGICAL & CHEMICAL TECHNOLOGY DIVISION

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Results:

Test sample / Controls	Stage 1, CFU	Stage 2, CFU	Stage 3, CFU	Stage 4, CFU	Stage 5, CFU	Stage 6, CFU	Sum of plate count for each stage, CFU	Average plate count of the controls, CFU	Mean Particle Size ¹ (µm) ¹	BFE (%) ²
Negative Control (Before)	0	0	0	0	0	0	0	0		
Negative Control (After)	0	0	0	0	0	0	0	0		
Positive Control 1	148	403	942	563	571	60	2687		2.94	
Positive Control 2	155	423	942	934	437	73	2964		2.93	
Positive Control 3	237	374	746	801	432	111	2701	2539	3.00	
Positive Control 4	126	298	659	531	482	40	2136		2.87	
Positive Control 5	144	237	772	524	426	105	2208		2.86	
FB850016344301	0	0	0	0	0	0	0			100.0
FB850016344302	0	0	2	0	1	1	4			99.8
FB850016344303	0	0	0	0	0	0	0			100.0
FB850016344304	0	0	0	1	0	0	1			100.0
FB850016344305	1	0	0	0	1	0	1			99.9

Remarks:

The tested results apply only to the samples as received by the laboratory.

¹Particle size to be in the range of 3.0 µm ± 0.3 µm.

²Based on the ASTM F2101 – 19 Standard – Level 1 & BS EN 14683 – Type 1, percentage of Bacterial Filtration Efficiency (BFE) must be ≥ 95.



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