



Test Report

No.T32120220469SN

Date: Feb 08, 2021

Page 1 of 8

10A LIMITED

RMS 1001-1005, 10/F, NANYANG PLAZA,57 HUNG TO RD.,KWUN TONG,KLN,HONG KONG

The following samples were submitted and identified by/on behalf of the client as:

NANOGO™ NANOFIBER MATERIAL RESPIRATOR - ORIGINAL / 10 CYCLES CLEANED / 20 CYCLES CLEANED

Case No. : CA321202224159
Lot No. / Batch Code : NOT PROVIDED
Colour : STRIPE PRINTED
Sample Description : BLACK AND WHITE STRIPE RESPIRATOR
Manufacturer : 10A LIMITED
Country of Origin : HONG KONG
Sample Receiving Date : JAN 20, 2021
Testing Period : JAN 20, 2021 – FEB 08, 2021

Test Requested	Conclusion
Bacterial filtration efficiency (With reference to ASTM F2101-19)	See Result
Differential pressure (With reference to EN14683:2019+AC:2019 Appendix C)	See Result
Determining the Initial Efficiency of Materials Used in Medical Face Masks to Penetration by Particulates Using Latex Spheres (With reference to ASTM F2299/F2299M-03 (Reapproved 2017))	See Result

***** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) *****

Signed for and on behalf of
SGS Hong Kong Ltd.

Au Kam Chi, Gigi
Technical Manager

Signed for and on behalf of
SGS Hong Kong Ltd.

Tsang Chuk Hai
Senior Microbiologist

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



Test Results:

Bacterial filtration efficiency With reference to ASTM F2101-19

NANOGO™ Nanofiber Material Respirator (Stripe Printed) S101: Original.

Test Side : Inside
 Pre-Conditioning : Minimum of 4 hours at 21±5°C and 85±5% R.H.
 Dimensions of test specimen : 161 mm x 218 mm
 BFE Test Area : 49 cm²
 BFE Flow Rate : 28.3 l/min
 Test bacteria : Staphylococcus aureus ATCC 6538
 Positive Control Average : 2.5 x 10³ CFU
 Negative Monitor Count : < 1 CFU

Test Specimen	Percent BFE (%)
1	99.9
2	99.9
3	99.9
4	99.9
5	99.9

Note: Plate count total for each stage can be provided upon request.

NANOGO™ Nanofiber Material Respirator (Stripe Printed) S102: 10 cycles cleaned.

Test Side : Inside
 Pre-Conditioning : Minimum of 4 hours at 21±5°C and 85±5% R.H.
 Dimensions of test specimen : 161 mm x 218 mm
 BFE Test Area : 49 cm²
 BFE Flow Rate : 28.3 l/min
 Test bacteria : Staphylococcus aureus ATCC 6538
 Positive Control Average : 2.4 x 10³ CFU
 Negative Monitor Count : < 1 CFU

Test Specimen	Percent BFE (%)
1	99.9
2	99.9
3	99.9
4	99.8
5	99.9

Note: Plate count total for each stage can be provided upon request.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Bacterial filtration efficiency With reference to ASTM F2101-19 (Cont'd)

NANOGO™ Nanofiber Material Respirator (Stripe Printed) S103: 20 cycles cleaned.

Test Side : Inside
 Pre-Conditioning : Minimum of 4 hours at 21±5°C and 85±5% R.H.
 Dimensions of test specimen : 161 mm x 218 mm
 BFE Test Area : 49 cm²
 BFE Flow Rate : 28.3 l/min
 Test bacteria : Staphylococcus aureus ATCC 6538
 Positive Control Average : 2.3 x 10³ CFU
 Negative Monitor Count : < 1 CFU

Test Specimen	Percent BFE (%)
1	99.8
2	99.9
3	99.9
4	99.8
5	99.9

Note: Plate count total for each stage can be provided upon request.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Differential pressure with reference to EN14683:2019+AC:2019 Appendix C
NANOGO™ Nanofiber Material Respirator (Stripe Printed) S101: Original.

Test Side : Inside
 Pre-Conditioning : Minimum of 4 hours at 21±5°C and 85±5% R.H.
 Test Area : 4.9 cm²
 Flow Rate : 8 l/min

Test Location	ΔP (mm H ₂ O/cm ²)				
	Specimen 1	Specimen 2	Specimen 3	Specimen 4	Specimen 5
Top Centre	5.9	6.8	6.1	6.5	5.7
Centre Left	6.4	7.1	7.0	6.1	8.6
Centre	6.5	7.8	7.2	7.4	8.3
Centre Right	6.6	8.5	7.3	7.0	8.0
Bottom Centre	6.3	6.3	6.8	6.9	7.9
Average	6.3	7.3	6.9	6.8	7.7

NANOGO™ Nanofiber Material Respirator (Stripe Printed) S102: 10 cycles cleaned.

Test Side : Inside
 Pre-Conditioning : Minimum of 4 hours at 21±5°C and 85±5% R.H.
 Test Area : 4.9 cm²
 Flow Rate : 8 l/min

Test Location	ΔP (mm H ₂ O/cm ²)				
	Specimen 1	Specimen 2	Specimen 3	Specimen 4	Specimen 5
Top Centre	6.2	7.1	8.1	6.1	6.7
Centre Left	7.5	10.3	8.2	7.2	7.7
Centre	7.3	7.7	7.2	7.3	8.1
Centre Right	8.8	6.1	7.3	7.5	9.4
Bottom Centre	6.8	6.7	6.8	6.4	7.3
Average	7.3	7.6	7.5	6.9	7.8

NANOGO™ Nanofiber Material Respirator (Stripe Printed) S103: 20 cycles cleaned.

Test Side : Inside
 Pre-Conditioning : Minimum of 4 hours at 21±5°C and 85±5% R.H.
 Test Area : 4.9 cm²
 Flow Rate : 8 l/min

Test Location	ΔP (mm H ₂ O/cm ²)				
	Specimen 1	Specimen 2	Specimen 3	Specimen 4	Specimen 5
Top Centre	5.3	6.8	6.2	7.1	5.6
Centre Left	8.0	7.3	7.5	6.6	6.0
Centre	7.3	7.1	7.0	8.0	6.6
Centre Right	7.1	7.3	6.9	7.1	7.6
Bottom Centre	6.1	6.6	6.0	6.0	6.5
Average	6.8	7.0	6.7	7.0	6.5

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Determining the Initial Efficiency of Materials Used in Medical Face Masks to Penetration by Particulates Using Latex Spheres (With reference to ASTM F2299/F2299M-03 (Reapproved 2017))
NANOGO™ Nanofiber Material Respirator (Stripe Printed) S101: Original.

Test Side	: Outside
Pre-Conditioning	: Minimum of 4 hours at 21±3°C and 30-50±5% R.H.
Test Condition	: 21±3°C and 50±5% R.H.
Test Area	: 41.61 cm ²
Face Velocity	: 18.30 cm/s
Particle Size	: 0.1 µm (+/-15% CV) Latex Microspheres
Average Filtration Efficiency	: 98.65%
Standard Deviation	: 0.10

Test Specimen	Pressure Drop (inH ₂ O)	Downstream Particle Count	Upstream Particle Count	Filtration Efficiency (%)
1	1.171	2450	171663	98.57
2	1.641	1948	140267	98.61
3	1.802	1884	142355	98.68
4	1.904	2272	159812	98.58
5	1.908	1589	132641	98.80

Note: The procedure incorporated a non-neutralized challenge. The non-neutralized aerosol is also specified in the FDA guidance document on surgical face masks.

NANOGO™ Nanofiber Material Respirator (Stripe Printed) S102: 10 cycles cleaned.

Test Side	: Outside
Pre-Conditioning	: Minimum of 4 hours at 21±3°C and 30-50±5% R.H.
Test Condition	: 21±3°C and 50±5% R.H.
Test Area	: 41.61 cm ²
Face Velocity	: 17.68 cm/s
Particle Size	: 0.1 µm (+/-15% CV) Latex Microspheres
Average Filtration Efficiency	: 98.89%
Standard Deviation	: 0.27

Test Specimen	Pressure Drop (inH ₂ O)	Downstream Particle Count	Upstream Particle Count	Filtration Efficiency (%)
1	1.717	1459	171663	99.15
2	1.916	1948	140267	98.61
3	1.918	1884	142355	98.68
4	1.777	1281	159812	99.20
5	1.710	1589	132641	98.80

Note: The procedure incorporated a non-neutralized challenge. The non-neutralized aerosol is also specified in the FDA guidance document on surgical face masks.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Determining the Initial Efficiency of Materials Used in Medical Face Masks to Penetration by Particulates Using Latex Spheres (with reference to ASTM F2299/F2299M-03 (Reapproved 2017)) (Cont'd)

NANOGO™ Nanofiber Material Respirator (Stripe Printed) S103: 20 cycles cleaned.

Test Side : Outside
 Pre-Conditioning : Minimum of 4 hours at 21±3°C and 30-50±5% R.H.
 Test Condition : 21±3°C and 50±5% R.H.
 Test Area : 41.61 cm²
 Face Velocity : 17.60 cm/s
 Particle Size : 0.1 µm (+/-15% CV) Latex Microspheres
 Average Filtration Efficiency : 97.57%
 Standard Deviation : 0.35

Test Specimen	Pressure Drop (inH ₂ O)	Downstream Particle Count	Upstream Particle Count	Filtration Efficiency (%)
1	1.532	4034	156982	97.43
2	1.742	3357	115252	97.09
3	1.649	2440	123069	98.02
4	1.635	3801	154827	97.55
5	1.582	3270	146820	97.77

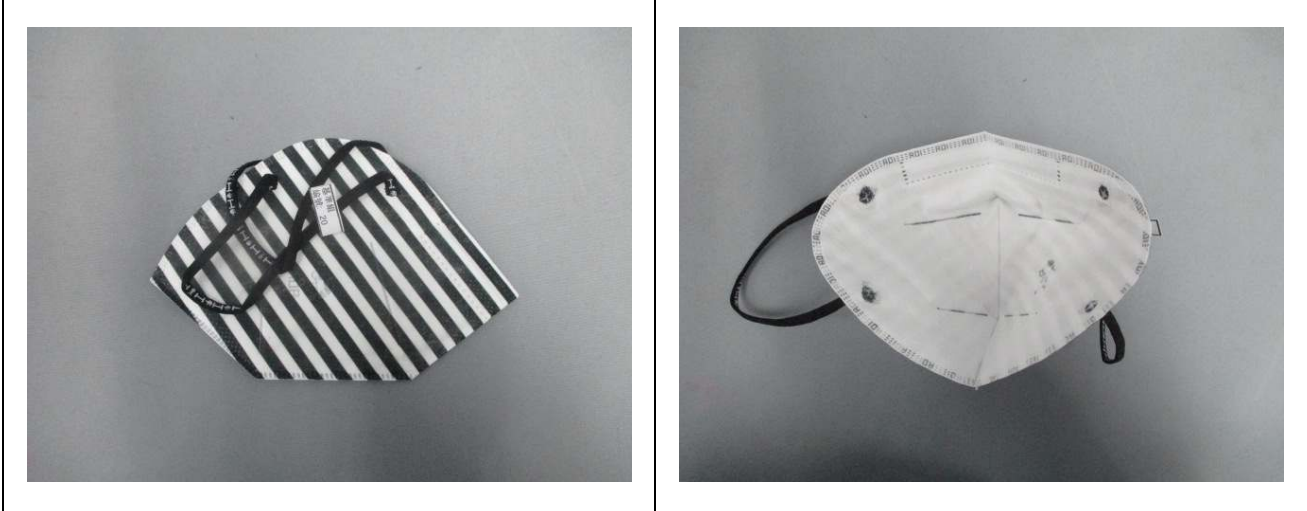
Note: The procedure incorporated a non-neutralized challenge. The non-neutralized aerosol is also specified in the FDA guidance document on surgical face masks.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Sample Photo:

Sample Picture (As received)
 NANOGO™ Nanofiber Material Respirator (Stripe Printed) S101: Original



Sample Picture (As received)
 NANOGO™ Nanofiber Material Respirator (Stripe Printed) S102: 10 cycles cleaned.



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Sample Picture (As received)
NANOGO™ Nanofiber Material Respirator (Stripe Printed) S103: 20 cycles cleaned.



SGS authenticate the photo on original report only

*** End of Report ***

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.