

Test Report **SL52025244502501TX** **Date: June 03, 2020** **Page 1 of 3**
 SHANDONG SHENGQUAN NEW MATERIAL CO.,LTD.
 DIAOZHEN INDUSTRIAL DEVELOPMENT ZONE,ZHANGQIU DISTRICT,JINAN,SHANDONG,CHINA.

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description : (A)Biomass Graphene Medical Face Mask
 Style No. : SMDP20605
 Composition : (A)Graphene non-woven fabric (gray) high-efficiency melt-blown fabric, spun-bonded non-woven fabric, PE (blue), spandex, polyester
 Sample Color : (A)grey/ blue
 Proposed Care Instruction : -
 Test Performed : Selected test(s) as requested by applicant
 Sample Receiving Date : Apr 14, 2020
 Testing Period : Apr 14, 2020 - Jun 03, 2020
 Test Result(s) : Unless otherwise stated the results shown in this test report refer only to the sample(s) tested, for further details, please refer to the following page(s).

Signed for and on behalf of
 SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd Testing Center



Sara Guo (Account Executive)

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Test Result

Standard Specification for Performance of Materials Used in Medical Face Masks
(ASTM F2100-2019)

Section 6.1 Bacterial filtration efficiency (BFE)*
(ASTM F2101)

	1#	2#	3#	4#	5#
(BFE), %	>99.9	>99.9a	>99.9	>99.9a	>99.9a

Remark: Performance Requirement: Level 1 ≥95%, Level 2 ≥98%, Level 3 ≥98%

a: There were no detected colonies on any of the Andersen sampler plates for this test article.

* Tests denoted with an * in this test report have been subcontracted to another ISO 17025 Accredited Laboratory.

Section 6.1 Differential Pressure
(EN 14683 :2019 Annex C, Flow rate 8 l/min)

	1#	2#	3#	4#	5#
Differential pressure ΔP (mm H ₂ O/cm ²)	5.1	5.1	5.2	5.3	5.3

Remark: Performance Level: Level 1 Barrier: <5.0mm H₂O/cm², Level 2 Barrier: <6.0 mm H₂O/cm², Level 3 Barrier: <6.0 mm H₂O/cm²

Section 6.1 Sub-micron particulate filtration efficiency(PFE)*
(ASTM F2299)

	1#	2#	3#	4#	5#
(PFE), %	99.68	99.07	99.0	99.0	97.1

Remark: Performance Requirement: Level 1 ≥95%, Level 2 ≥98%, Level 3 ≥98%

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Section 6.1 Resistance to Penetration by Synthetic Blood
(ASTM F1862/F1862M-2017)

Pressure 120mmHg

Penetration on inside surface							
1#	2#	3#	4#	5#	6#	7#	8#
Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9#	10#	11#	12#	13#	14#	15#	16#
Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
17#	18#	19#	20#	21#	22#	23#	24#
Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
25#	26#	27#	28#	29#	30#	31#	32#
Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Number of Pass:			32				
Overall result:			Acceptable				



Remark:

- 1) Performance Requirement Level 1 Barrier: 80mmHg, Level 2 Barrier: 120mmHg, Level 3 Barrier: 160mmHg
- 2) Distance of the medical face mask target area surface to the tip of cannula is 30.5cm.
- 3) Condition and Test temperature (21±5)° C, relative humidity (85±5)%
- 4) An acceptable quality limit of 4.0% is met for a single sampling plan when 29 or more of the 32 tested specimens show pass results

Section 6.2 Flammability

(16 CFR Part 1610 - 2008)

Sample : A
 Fabric Surface : Smooth
 Test Specimen Direction : Length

<u>As Received</u>	
<u>Burn Code</u>	
(1)	IBE
(2)	IBE
(3)	IBE
(4)	IBE
(5)	IBE

Flammability Classification: Class 1

Requirement: Class 1 for Level 1/ Level 2/ Level 3

Conclusion: Pass

Remarks

Class 1 Normal Flammability
 Class 1 textiles exhibit normal flammability and are acceptable for use in clothing.

Burn Code Description:

IBE = Ignited, but extinguished

The statement of conformity in this test report is only based on measured values by the laboratory and does not take their uncertainties into consideration.

End of Report



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